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IT is unfortunately the case that children suffering from crippling diseases and deformities of all kinds exist in large numbers throughout our country. The majority lie out of sight in their homes; many are in workhouses or collected in homes for crippled children, but many others are frequently to be met in our streets. The number of adult cripples resulting from disease or deformity in childhood is a still more common object for our sympathy; and shame is added when we realize that perhaps three-fourths of these could have been cured, and most of the others given much greater activity, if their condition had been recognized early and treated efficiently. There is no lack of sympathy for these children, but it must be led into practical channels, and, after all, the comparative comfort of a cripples' home is but a half-measure. Our sympathy should be directed towards the *cure* of the deformities and diseases from which they suffer, or, where cure is beyond reach, the greatest improvement that can be attained. This paper is written to draw attention to this need and to bring forward proposals for the establishment of a system of orthopaedic hospitals and clinics for the active treatment of cripples, and more particularly of crippled children, throughout the country. In Shropshire a system of hospital and out-patient treatment such as is here to be described has been organized, owing to the pioneer work of Miss Hunt, who started the Children's Orthopaedic Hospital at Baschurch in 1900. As a direct consequence many hundreds of children have been cured or greatly benefited. Further, through the out-patient clinics added more recently, many cases have been brought to light which would otherwise have remained unknown and untreated. Thus we have been able to realize more fully the great number of cases in very serious need of treatment.

The proposals put forward are thus not merely theoretical, but concern the multiplication of this organization throughout England and Wales, and its general co-ordination under the Ministry of Health.

The accompanying table is compiled from the list of cases under treatment in Shropshire, and at a daughter institution at Stoke in Staffordshire, and represents fairly the principal disabilities and the three main groups in which they may be included.

It will be seen that rickets and surgical tuberculosis taken together account for 40 per cent. of the crippled children under treatment in these areas. Of the causes of these diseases and of the means of preventing them we have practical knowledge. Rickets occurs almost exclusively in the children of the poorer sections of the population and surgical tuberculosis is commoner among them than among the well-to-do. Overcrowding and bad housing, with lack of open-air playgrounds and ventilation in the homes, are among the predisposing causes of both these diseases, coupled in the case of rickets with improper or insufficient food, and in that of surgical tuberculosis with tuberculous milk. Of the causes of the other groups too little is known to justify any sanguine anticipations that they can be greatly diminished in the near future. We are impotent to prevent congenital deformities and have little or no power to control the incidence of paralysis, though much may be done by suitable early treatment to prevent or later to rectify the deformities so produced. The table shows that cases under treatment for congenital deformities and paralysis constitute 45 per cent. of the total. In health organization directed towards the elimination of the causes of rickets and tuberculosis lies the best hope of any early reduction in the frequency of crippling disabilities. Even were this achieved and the present total of cripples diminished by 40 per cent., then would remain the other 50 or 60 per cent. crippled by causes over which we have little or no control.

Table of Cases under Treatment.

Nature.	Shropshire.	Stoke.	Total.
A. Deformities, congenital or acquired:			
Rickets	51	177	228
Deformities of the foot	51	71	122
Scoliosis	14	8	22
Congenital dislocation of hip	8	16	24
Fractures, non- and mal-union	10	15	25
Other deformities		43	43
Total	134	330	464
B. Paralyses:			
Infantile paralysis	72	211	283
Infantile hemiplegia	11	43	65
Spastic paraplegia	11		
Total	94	254	348
C. Surgical tuberculosis:			
Spine	75	55	230
Hip		57	
Knee		26	
Other joints, etc.		17	
Total	75	155	230
D. Other conditions:			
Osteomyelitis	11	33	44
Various	28	16	44
Total	39	49	88
Total	342	788	1,130
Approximate population of area served	246,307	425,000	671,307
Approximate proportion of cases under treatment to population	1 to 722	1 to 538	1 to 594

GENERAL CONSIDERATIONS AS TO TREATMENT.

Under present conditions some of these children die, and of the remainder most become cripples. Many are fully curable, almost all can be benefited; but an organization to provide early and well-directed treatment is necessary.

The country has, so far, made no real effort to face the problem. The great need for hospital provision for cases of surgical tuberculosis has indeed been recognized by Government under the National Insurance Act (1911), but no comprehensive scheme has been brought forward. Here and there orthopaedic hospitals, or orthopaedic departments of general hospitals, exist as a result of voluntary effort, but these are only capable of dealing with a small percentage of the cases. For the immense majority there is no hospital accommodation, nor can they hope for adequate treatment. The task is beyond the scope of the general hospitals, for it is impossible for them to provide the necessary conditions, which should include ample bed accommodation in open-air country hospitals. It is characteristic of orthopaedic surgery that an operation is often not an end in itself, but one link in a chain of treatment; moreover, by early treatment and progressive orthopaedic measures operation can in many cases be avoided altogether. Further, there is, as a rule, no period of natural convalescence, but, on the contrary, in the case of most deformities a persistent tendency to relapse long after complete correction. For these reasons a long stay in hospital with continued careful corrective treatment and after-supervision are necessary.

In those cases of paralysis in children where tendon grafting is needed, a carefully planned course of treatment preparatory to operation must be carried out and afterwards directed toward the restoration of function.

Again, the need for time is exemplified in the more chronic diseases of bones and joints, which may call for perfect immobilization and surgical care for very long periods.

A lengthy stay in hospital must therefore be foreseen and provided for. The average duration of in-patient treatment may be reckoned as six months or more, and the bed accommodation should be sufficient to allow this.

Further, there should be no fixed age limit, for adolescent and adult cripples needing active treatment must not be shut out, and a considerable number of accidental injuries occur which demand orthopaedic treatment.

Experience has proved the very great advantage of treating the children in open-air wards in the country. Not only is this most advisable on account of the actual benefit due to the country air, but also it is economically sound owing to the immensely higher price of alternative town sites.

Further, the final results, and the rapidity with which they can be obtained, depend to a very great extent on early recognition and treatment. For example, a congenital deformity which in early infancy can be cured by simple painless manipulation will, when the child is six months old, require forcible correction under anaesthesia, and at six years may need several such manipulations, and possibly operative interference as well, with in the end a less perfect result.

At present a paralysis or deformity is too often accepted by parents, and even by medical men, as permanent and incurable. This is due to the want of knowledge of parents and those responsible for the case of what can be done and of the importance of doing it early. Hitherto there have been very few orthopaedic hospitals in England; as a consequence, such children have been sent up to a busy general hospital, where, owing to pressure on the beds, it has not been possible to keep the patients in long enough; further, there has been no after-care organization, and the whole treatment has been nullified by the inevitable tendency to relapse.

PROPOSED SCHEME.

Our proposals concern:

A. The division of England and Wales into a number of districts.
B. The establishment in each district of
  (1) An open-air country orthopaedic hospital.
  (2) A system of scattered out-patient clinics.
C. The organization of efficient treatment.
D. General co-ordination by a committee working under the Ministry of Health.
E. The number of beds required.
F. Financial provision required.

A.—*The Division of England and Wales into a Number of Districts.*

This division should be coincident with that for other administrative purposes, and might well follow that adopted by the Ministry of Pensions. Where the Pensions "Regions" are too large they should be suitably subdivided. The districts should not be too large, as close interworking of hospital and clinic is necessary; wherever possible a radius of fifty miles should not be exceeded.

B.—*The Establishment in Each District of*

(i) *An Open-air Country Orthopaedic Hospital.*

These hospitals will be referred to as the *Central Orthopaedic Hospitals.* Each should provide bed accommodation adequate to serve the district, have open-air wards, be situated on dry soil with a good aspect, and be in the country, but preferably near enough to a town to share in its water, light, transport, and drainage systems.

In addition to the wards there will be needed operating theatres, gymnasia, handicraft workshops, schoolrooms, playrooms, and an administrative block. Most, if not all, of these requirements could be met by suitable huts.

As the patients will be mainly children of school age, it will be necessary for the education authorities to arrange for their schooling and to provide the requisite teachers.

Workshops where the children can learn simple handicrafts such as basket making, carpentering, and leather work, are of great value, and for the older children we hope that some definite training in suitable industries may be possible.

While cure of the disability is the prime object of the whole organization, we feel that the development of happiness, of a self-reliant outlook of and the capacities of these children is of the utmost importance.

The hospitals should be centres of play, of handicrafts, and of education, as well as of treatment.

For *management* these hospitals should, if possible, be affiliated to the general hospital of the neighbouring town

This arrangement would be simple whenever a suitable general hospital willing to accept the responsibility existed, bu where the C.O.H. (central orthopaedic hospital) was situated near a big city, a system of representation of all the principal general hospitals on the committee of management should be instituted. In any case, we would suggest that this committee should consist of:

(*a*) Representatives of the general hospital or hospitals.
(*b*) The orthopaedic surgeons and matron of the C.O.H.
(*c*) The medical officers of health and tuberculosis officers of the district.
(*d*) Representatives of the local authorities and education authorities of the district.

A large committee of this kind is needed to ensure the representation of all the interests concerned. It would appoint from among its members a smaller Executive Committee. It is by the possession of a truly representative local governing body that these hospitals can best be organized so as to carry out effectively their various activities in the clinical departments, the workshops, the schoolrooms and playrooms, and the out patient clinics.

The affiliation between general and orthopaedic hospitals should not stop short at administrative affairs. Clinical co-operation is even more important. The spirit of mutual help rather than rivalry should run through all their relations. A great step towards ideal co-operation would be taken if the general hospitals would institute an orthopaedic section of their out-patient department and appoint one of the surgeons of the C.O.H. to take charge of it. Out-patients coming up could then be given provisional grouping, and later, after examination, be referred readily, for opinion or transfer, from the general to the orthopaedic side or vice versa.

Staff.

The staff may be considered as:

1. Orthopaedic surgeons. In most cases these would be visiting surgeons, and the salary would be on a part-time basis. In some places the appointment of a whole-time surgeon might be advisable.
2. Radiologist and physiotherapist.
3. House surgeons.
4. Matron.
5. Sisters, nurses, masseuses.
6. School teachers.

The appointments of the surgeons, radiologist, and matron should be made by the Ministerial Committee (see below) in consultation with the local committee. They should be held for a limited period, the occupant being eligible for re-election.

The house surgeons should be elected for periods of six or twelve months by the local committee on the recommendation of the surgeons.

In London and other big cities where orthopaedic hospitals or departments already exist it would be advisable merely to bring the existing institutions into the general organization so that co-ordination might be obtained. In this description of the C.O.H.'s and their management we are mainly concerned with those places where there is no satisfactory organization of this work.

(ii) *A System of Scattered Out-patient Clinics.*

As has been stated, these children require after-care or periodic supervision for long periods, sometimes for years, and the maintenance of this is fundamental to the success of the treatment. Often also appliances need repair or renewal. It has been found impracticable to bring all the patients more or less recently discharged up to one central hospital frequently for these purposes; scattered out-patient clinics are therefore a necessity.

A second and very great advantage in their existence is that they provide means for the preliminary examination of cases referred to them from local sources.

A third gain consists in the fact that it is possible to treat some of the minor cases as out-patients throughout. The clinics should probably number between twelve and twenty-four in each district, and as the use of the rooms would only be periodic, should be held in connexion with a local hospital, dispensary, or child welfare centre.

Wherever possible suitable local practitioners should be asked to help. One of the surgeons of the C.O.H. should visit the clinics periodically and see all the patients. He should also be prepared to examine cases sent to the clinics for consultation by local doctors and school inspectors. These facilities would become generally

known throughout each district, and this would mean that cases would be brought under treatment earlier, and that fewer would remain unknown and untreated.

A competent orthopaedic sister, selected from the staff of the C.O.H., should visit the clinics frequently, carry out treatment and exercise general supervision on the instructions of the surgeon.

C.—*The Organization of Efficient Treatment.*

The methods employed in dealing with these cases, and in particular the intimate knowledge of work with splints, appliances, and plaster-of-Paris, call for a specially trained surgical and nursing staff.

Further, in the demand for a very great deal of personal attention on the part of the surgeon lies one of the most convincing arguments for specialization. It is the special predilection for this work, and the patient attention to detail and after-care, which should distinguish the orthopaedic surgeon. Having withdrawn himself from active participation in the surgery of the head, the thorax, and the abdomen, he is able to specialize in the treatment of the disabilities of the joints, bones, muscles, ligaments, and nerves.

The central hospitals, where near a university town, would be available for the instruction of medical students, and the house-surgeon appointments would be of considerable educational value.

Nurses.

In addition the central hospitals would take their part in the training of nurses. And in this connexion there is a special advantage in definite affiliation with general hospitals, so that:

(1) All nurses may get some experience of this work and
(2) It may be possible for any nurse to specialize in orthopaedic work without having to extend her training excessively.

It is anticipated that under new regulations for the registration of nurses it will be necessary for every qualified nurse to be trained for three years in a general hospital. Therefore, unless the orthopaedic hospital is under the aegis of the general hospital, it would be necessary for the period of orthopaedic training to be entirely additional to the three years in the general hospital. Where, however, affiliation exists only about one extra year will have to be spent by those who want to take up orthopaedic nursing. At least six months in the plaster and splint department would be a necessary part of their training.

It will be essential to give good salaries and proper leisure so as to make the work attractive to the best type of nurse. In connexion with this side of the work we would recommend the appointment of a nursing tutor, who would carry out the clinical educational work and leave the matron free for her administrative duties.

Physical treatment will play a very important part in these hospitals. All working in this department should have passed the standard examinations in massage, electrotherapy, and remedial exercises.

D.—*General Co-ordination by a Committee Working under the Ministry of Health.*

This committee should consist of representatives of that authority, the British Orthopaedic Association, and the C.O.H.'s. The committee would appoint or advise as to the appointment of the staff of the C.O.H.'s, and would consider and make recommendations as to the general policy and methods of administration. It would be responsible for the attainment and maintenance of a high level of efficiency throughout the system.

For the primary organization a preliminary committee might well be appointed consisting of, say, three representatives of the Ministry of Health and three of the British Orthopaedic Association.

E.—*The Number of Beds Required.*

It is possible to get a fairly close estimate of the bed requirements by two methods.

(*a*) From the table already given it may be seen that the cases under treatment in Shropshire and at Stoke represent approximately 1 in 594 of the populations of the area "served." It is the opinion of those responsible for both these organizations that less than half of the cases requiring treatment are so far reached, so we may take the proportion as 1 in 500 and be on the safe side. Almost all the patients require in-patient treatment for a time, and the relation of the average periods of in-patient and out-patient treatment is probably about 1 to 4. On these figures beds would be required for 1 in every 2,000 of population.

(*b*) In France before the war the establishment of beds for surgical tuberculosis was, we believe, based on the proportion of 1 to 8,000 population. This provision was found inadequate. Now the proportion of cases of surgical tuberculosis and other conditions in the total figures from Baschurch and Stoke is 230 to 1,130 or 1 in 5. Following these figures, 5 in 8,000 (or 1 in 1,600) would be the proportion to take in order to make a provision comparable to that of France.

By these two methods, which admittedly lead to approximate estimates only, we obtain the needs as 1 to 2,000 and 1 to 1,600 population. But as it is wiser to start with too few beds rather than too many, we would suggest the establishment as a commencement of 1 bed to 4,000 population, or, in round numbers, 10,000 beds in England and Wales.

F.—*Finance.*

(*a*) *The Establishment of the C.O.H.'s.*—We would recommend that these should be hutted hospitals. Probably a complete unit of 200 beds would cost £10,000. If this estimate proved correct the 10,000 beds would cost £500,000.

(*b*) *Upkeep.*—It is our opinion from the experience at Baschurch that £2 per bed per week would provide for the total expenditure of the C.O.H., including all salaries. For the 10,000 beds that would mean £1,040,000 per annum. For the out-patient clinics an attendance fee of 2s. 6d. or 3s. 6d. would probably meet all expenses. If we assume that there would be 40,000 out-patients (that is, four times the number of in-patients) and that the average attendance would be once a month, the annual cost at 3s. 6d. would be £84,000.

These statements are estimates of the total cost of the scheme, but are in no way to be considered as actual new expenditure. This must be far smaller owing to the following deductions. First, as regards establishment; hutted hospitals already exist in suitable places; they are at present used for war work, but will become available for transfer to the Ministry of Health; there are also orthopaedic hospitals already established which will be utilized in the organization. Secondly, under existing circumstances, many of the 10,000 patients who would occupy the beds have to be taken into general hospitals or workhouse infirmaries. These patients will come to the orthopaedic hospitals, but it will not mean new expenditure but a corresponding relief of the other hospitals. Similarly, cases belonging to the large class of surgical tuberculosis are now being maintained in various institutions under the provisions of the National Health Insurance Act; they will be transferred to the orthopaedic hospitals, but their maintenance fees will come with them. Further, the gathering together of all these cases into hospitals specially devoted to, and prepared for, their active and effective treatment will mean that the money expended on their care and treatment will be used more efficiently, and in many cases enable them to leave hospital more quickly and return to an active life. It will relieve the general hospitals of some of their most trying and chronic cases, and mean the setting free of beds to the relief of their waiting lists.

Such new expenditure as does prove necessary should not fall entirely on the Treasury.

Capital expenditure should be shared in suitable proportions with the local authorities. And with regard to running expenses there should be:

(1) Private wards for those who could pay full fees.
(2) Arrangements by which all patients should make a contributory payment who could afford to do so.
(3) Arrangements by which local authorities should pay at least part of the cost of the poorer patients.

In this way the Treasury, the local authorities, and the patients would share the expenses. Possibly half the first cost and one-third of the running expenses would come from Treasury sources through the Ministry of Health. From the national point of view the improvement in the earning

capacity of the 40,000 or more children treated annually should go far toward covering the expenditure.

Finally, we would plead that the matter is very urgent. First, owing to the crying need; one cannot walk through the streets without seeing children and adults crippled for want of treatment.

Secondly, because the local authorities are now becoming alive to the condition of affairs, and are anxious for something to be done. A general organization is wanted for the efficient co-ordination of the work rather than any compulsion of local authorities. In both Shropshire and Staffordshire, where the authorities are already at work, there is general eagerness to join in the local organization.

Thirdly, a unique opportunity is presented now. The Ministry of Pensions is organizing orthopaedic hospitals and clinics, on similar lines to those described, for men crippled in the war; is providing them with the special departments, supplying the apparatus necessary, and is staffing them with surgeons trained in orthopaedic principles, many of whom have had much experience with crippled children.

These pensions hospitals will at first be fully occupied, but before many months there will be a diminution in the needs of the soldier cripples. Then will come a time when they will have to be cut down, and their staffs gradually dispersed, unless the Ministry of Health has made its plans in advance and obtained the necessary financial provision for taking them over, either in part for children's work only, or as a whole with the responsibility of such war work as remains to be done. The opportunity is exceptional, and the advantages offered by it very great. But preparations should be made by the Ministry of Health immediately, so that it may be in a position to act when the time comes.

The matter is so urgent that Government action should not be awaited. Everywhere efforts should be made to start local organizations which would fit into the general scheme, but such action should be taken in consultation with the Ministry of Health.

We feel confident that, if an organization such as we have outlined is set up, many thousands of children otherwise doomed to the life of cripples will be redeemed to health, and others, though not fully cured, enabled to become self-supporting citizens, and given far greater possibilities of activity and happiness.

TRANQUIL TRACHEOTOMY, BY INJECTING COCAINE WITHIN THE WINDPIPE.*

BY

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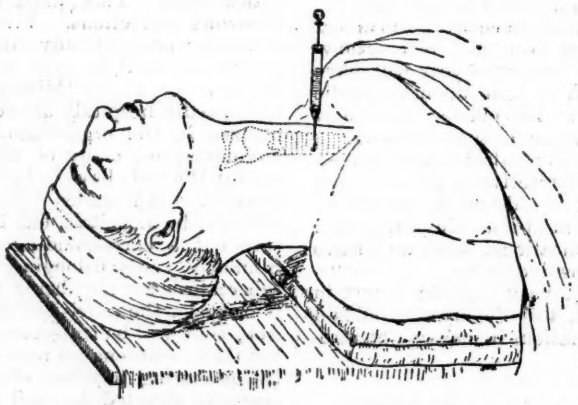
As a general rule, the opening of the trachea is accompanied by so much disturbance that there often ensues a scene which the elder dramatists would have described as one of "wild excursions and alarums"! It is depicted in the following words by Clinton Wagner: "The introduction of the knife, together with the flow of blood, produces violent reflex action. The larynx rises and falls spasmodically and very rapidly, and the use of a knife or scissors is fraught with danger. The operator at this moment has need of all his coolness and presence of mind. Blood will find its way into the trachea and lungs, and death on the table from asphyxia may suddenly take place."[1]

Apart from the risk of such a catastrophe, I remember the days when, before opening the trachea, one had to advise the audience to "take cover" behind the head of the operating table, as the cough started by the first entry of air into the windpipe frequently resulted in blood being shot out with such force that it bespattered the assistants, the walls, and even the ceiling.



Semi-diagrammatic illustration showing the injection of cocaine within the lumen of the trachea, as a preliminary to tracheotomy. It also shows the best position of the shoulders and head for tracheotomy, laryngo-fissure, and other external operations on the larynx and trachea.

All this commotion can easily be avoided by the intratracheal injection of cocaine in the way to be described. I acknowledge my indebtedness for the idea to Dr. Crosby Green, who, in an article on "Thyrotomy for cancer of the larynx," describes how, before splitting the larynx, he injected a 1 per cent. solution of cocaine through the cricothyroid membrane into the cavity of the larynx.[2] He, it appears, is not in the habit of performing a preventive tracheotomy in this operation, and he makes no mention of injecting cocaine within the trachea. If not the first to use it in tracheotomy, I think I was the first to employ it in this country. This I did in the year 1913.

It is employed in the following way (see diagram). An ordinary hypodermic syringe is charged with about twenty drops of a 2½ per cent. solution of cocaine. As soon as ever the tracheal rings are laid bare the syringe is grasped, as one does a pen, with the forefinger about one inch from the extremity of the needle, and with this the windpipe is sharply stabbed between two tracheal rings. The middle, ring, and little fingers are resting on the neck, and they prevent the point from penetrating more than a quarter to half an inch within the lumen of the trachea. The cocaine solution is injected into the cavity of the windpipe, some five to fifteen drops, and the needle is sharply withdrawn.

The liquid in the windpipe at once gives rise to a slight, stuffy cough. It causes no spasm or distress, and as it trickles down towards the region which endoscopists know to be the sensitive spot of this area—namely, the carina at the bifurcation of the trachea—this tickling cough soon ceases. If there is no great urgency, ten minutes should be allowed to elapse, the time being occupied by clearing the front of the trachea, checking all bleeding, preparing the tube, and so forth. At the end of that time the incision can be made into the trachea and the cannula introduced without pain, spasm, or even the slightest cough, as quietly and smoothly as the original incision through the skin. The calm with which this proceeding takes place is in striking contrast with the agitated, hurried, and often bloody and dangerous operation of former days.

I have used cocaine of the strength of 2½ per cent. for the simple reason that a 5 per cent. solution is generally at hand, and it has been convenient to dilute it one half. I find the 2½ per cent. strength quite as effective as the 5 per cent., which I tried first. In children a 1 per cent. solution and five drops would be sufficient.

The method is employed with either general or local anaesthesia. Local anaesthesia is sufficient in all adults when the opening of the trachea is the only operation to be performed at one sitting.[3] With novocain used endermically, and the cocaine used in this way within the windpipe, there is neither pain, spasm, nor coughing in performing tracheotomy. A patient gets up from the table and walks back to his ward, to eat his usual meal.

I have records of 25 cases of laryngo-fissure in which this method has been used in performing the preliminary tracheotomy, and the numerous visitors to my practice have been able to see the calm which it secures. In these five years it has been used in scores of cases of tracheotomy by myself, Mr. Hope, Dr. McIlraith, and the house men in King's College Hospital, with uniformly good results and with no drawbacks.

* A paper read before the American Medical Association (Section of Oto-Laryngology), Atlantic City, N.J., on June 13th, 1919

It has not come my way to use it in children younger than 4 years, but, with the precautions I have advised, I think it can be safely employed. Nor have I had occasion to use it in sudden asphyxia—the "*opération d'urgence.*" Most cases of extreme stenosis of the larynx ought to be provided against by timely tracheotomy, and even when there is dyspnoea, the few minutes' delay entailed by this useful detail are more than compensated by the calm and security with which the operation can be completed.

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A CASE OF COEXISTENT SUPRARENAL AND RENAL DISEASE OF UNCERTAIN ORIGIN.

BY

CAPTAIN H. G. SPARROW, R.A.M.C.(T.C.),

AND

CAPTAIN W. S. SODEN, R.A.M.C.(T.).

AFFECTIONS of the suprarenal body being always of interest, we think that the following case, which came under our observation last November in Palestine, is worthy of record. While the outstanding clinical features were those of profound Addison's disease, the presence of albuminuria and of purpura rendered diagnosis very difficult.

We would add that, as is well known to those who have worked in malarial districts, malignant tertian fever may simulate almost any non-tropical disease; that pyrexia may be atypical and the parasite absent from the peripheral blood on repeated blood examination, especially after quinine administration. It is not surprising, therefore, that this case, occurring at the time when malignant malaria was rife among the troops of the Egyptian Expeditionary Force, received quinine treatment in spite of negative blood films. The *post-mortem* appearances were not those of true Addison's disease.

History and Condition on Admission.

Pte. M., R.A.M.C., aged 32, was admitted as a patient to his own field ambulance on October 21st, 1918, with weakness, vomiting, and night blindness, in evidence for two months. He appeared very weak and anaemic. Blood film negative to malaria. Treated with quinine orally, and evacuated four days later. There is no record of the temperature. A second blood film at the casualty clearing station was also negative to malaria, but quinine was continued. He was admitted to No. 36 Stationary Hospital on October 27th.

On admission the temperature was 102° F. The patient was pale; no icterus, skin dry, recent loss of subcutaneous tissues evident; tongue moist, slightly furred, mouth healthy, breath odourless. Heart no enlargement, sounds rather soft, no thrills or murmurs. Pulse 80, regular, low tension. Lungs normal; liver and splenic dullness normal. Abdomen slightly retracted, no pain or tenderness, no visceral abnormality discovered.

Central nervous system lethargic but mentality normal; cranial nerves normal, no nystagmus, pupils equal, reactions normal; muscles generally flabby, no paresis, sensation normal, no ataxy; knee and ankle jerks present and equal, abdominal reflexes sluggish, plantar reflexes flexor.

Course.—The initial pyrexia had subsided by the following morning, and a subnormal course was recorded for seven days. During this period he was treated with quinine gr. xxx by mouth daily. On the evening of November 4th the temperature rose to 99°, 100° being recorded the following morning, and a further rise to 103.2° that evening. Two blood films, taken during this period, were negative to malaria and relapsing fever. An intramuscular quinine injection (gr. xii) was given on the 6th and repeated on the 7th, the pyrexia readily responding. The temperature thereafter seldom reached the normal line. The pulse and respiration rates were within normal limits until the last few days of the illness, when the pulse reached 100 at times. The bowels tended to constipation until the end, when diarrhoea set in. The average amount of urine passed was about 40-50 oz. daily; it was pale in colour, frequency was not noted. The blood pressure was always conspicuously low. On November 7th the vomiting, which previously had not been greatly in evidence, became more marked. It was always accompanied by nausea, and unrelated to food. Examination of the urine showed specific gravity 1015, ++ albumin, no sugar. The fundi were not examined, as no ophthalmoscope was then available. The cardiac condition remained unaltered, no headache was complained of, and no oedema was noticeable. The following day a blotchy purpuric eruption appeared on the lower aspect of the chest, over the abdomen, and to a lesser extent on the extremities. Examination of the urine on November 9th showed albumin +, no sugar, no casts or organisms. A differential white count showed increase of polymorphs. The same evening acetone was detected in the breath, and about an hour later the patient vomited a large *ascaris* worm. Saline and santonin treatment was instituted, no further worm being vomited or passed in the motions, and the acetone odour of the breath gradually disappeared. The vomiting, however, continued, and the low blood pressure, together with the marked asthenia, strongly suggested Addison's disease. A careful examination of the lungs for tuberculosis was negative, and evidence of abnormal skin pigmentation was at this stage too indefinite to be of any service. The deep reflexes gradually disappeared and abnormal skin pigmentation became definite by November 23rd, the distribution corresponding to the usual Addisonian type; the mouth, however, was remarkably free.

At this stage the patient presented the following picture: Signs of general bodily wasting. Mentality normal, very lethargic; cranial nerves normal; no nystagmus. An appreciable degree of bilateral pseudoptosis. Pupils equal, reaction to accommodation and bright light fairly brisk, to shaded light poor. Cilio-spinal reflex not elicited. Abdominal reflex absent. Both knee and ankle jerks absent on reinforcement. Plantar reflexes flexor, but elicited with difficulty. Pronator, supinator, biceps and triceps jerks barely elicited. Muscles very flabby, no actual paresis. No sensory loss. Heart: No enlargement, no thrills or murmurs. Pulse regular, rather rapid, very low tension. Blood pressure (both brachials) by sphygmomanometer 62 mm. Capillary instability marked. Abdomen scaphoid, nothing else discovered. No glandular enlargement. Purpura fading, but still evident. No oedema of legs, back, or face. Blood examinations: Total leucocytes 11,600 (polymorphs 84 per cent., lymphocytes 10 per cent., large mononuclears 4 per cent., eosinophils 1 per cent., myelocytes 1 per cent.). Slight poikilocytosis and anisocytosis of reds, no polychromatophilia, no nucleated reds present. Pituitarin injections brought about no appreciable rise of blood pressure.

On November 30th vomiting became more frequent, and diarrhoea was superadded; motions greenish, and much bright blood present. Faint uraemic odour in breath. No appreciable diminution of urine. Examination (routine) of the stools for dysentery was negative, the condition being ascribed to purpura.

Patient sank and died on December 3rd, being quite conscious till the end.

Post-mortem Examination.

Pericardium healthy, cardiac muscle a little cloudy, no fatty or fibrotic change evident, no hypertrophy. No apparent dilatation. Valves healthy. Coronaries healthy. Aorta, no atheroma.

Suprarenal bodies: Cortex of both glands appeared somewhat shrunken; medullary portion in each case was represented merely by a thin-walled, deeply pigmented sac, containing the slightest traces of a fatty material. Under the microscope the cortex was narrowed and atrophied, no trace of medullary substance, unless represented by some fatty spaces. Some degree of cloudy swelling and granularity of cortical cells.

Kidneys: Right kidney, size of hen's egg, very pale in colour, very adherent capsule, granular surface (granules size of mustard seed). Cortex very narrow, vessels thickened, no cysts or mottling. Kidney not microscoped. Left kidney, slightly smaller than normal, capsule stripped none too readily, surface as in right. Outline fan-shaped on section. Scar near upper pole (? old infarct). Five cysts in cortical zone, containing urinary fluid, one contained small oxalate crystal. Much mottling generally. Vessels appeared somewhat thickened. The microscopic changes were marked swelling and granularity of cells of cortical tubules, marked disintegration of cytoplasm, with frequent absence of nuclear staining. Much granular débris in lumina, in some cases definite hyaline casts. Glomerular tufts more cellular than normal, but no actual fibrosis. Pyramidal tubules showed more frequent casts, but epithelium not so extensively degenerated as in cortical tubules. Some increase of connective tissue stroma in pyramidal zone, but no true fibrosis.

Lumbar glands: Some general enlargement, consistency soft, black in colour, no caseation.

Spleen: Normal (no lardaceous reaction). No malarial parasites. No melanin. Liver: Slightly cloudy, otherwise normal. Stomach: Some catarrh. Intestines: Both large and small intestines showed numerous purpuric patches, especially the former, there being an especially large one in the caecum, with evidence of recent bleeding. No worms present. The remaining organs appeared normal.

Bacteriological report: Lung smears and cerebro-spinal fluid negative to malaria.

Conclusions.

It would seem probable that the renal and suprarenal lesions occurred *pari passu*, the suprarenal element so overshadowing the renal that it is doubtful if the latter would ever have been diagnosed during life but for the albuminuria. Whether the condition was a primary one, or secondary to a toxaemia from other causes is debatable. The occasional pyrexia is puzzling.

It has been suggested that a blood culture might have thrown some light on the matter; we cannot reconcile ourselves to a septicaemia, more or less apyrexial, reacting

completely to quinine medication, and, moreover, showing none of the common symptoms and signs thereof, with the exception of purpura. Purpura is certainly not uncommon in septicaemia, but it occurs in many other conditions also. The leucocytosis of 11,600 did not seem of much clinical value.

The presence of *Ascaris lumbricoides* was probably accidental; its toxicity is usually slight in adults, though on inquiry we learnt from a colleague from India of a case of severe toxaemia with purpura, the origin of which was unaccountable until the patient one day vomited two *ascaris* worms, which led to treatment of the condition and disappearance of the symptoms. The worms in this case were, however, numerous. Malaria, relapsing fever, and tuberculosis were disproved both clinically and at the autopsy; the enterica also.

In spite of the negative history of syphilis a Wassermann reaction might have been of service, though a matter of some difficulty under the local conditions. The terminal purpura, if not the early purpura also, may perhaps be accounted for by the combined renal and adrenal condition.

Lastly, an interesting point in the case is the absence of all visible sign of cardiac hypertrophy so common in renal disease, explicable perhaps by the deficiency of adrenalin.

We are much indebted to Major Alec Ferguson (pathologist to Egyptian Expeditionary Force), Captain Rhys Jones (No. 1 Military Laboratory), for the pathological and bacteriological findings; and to Lieut.-Colonel Fredk. E. Roberts, D.S.O., R.A.M.C., for permission to publish the case.

TWO CASES OF CHOLESTERIN PLEURAL EFFUSION.

BY

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Cases of cholesterin pleural effusion are so rare that it seems well to put on record the details of the following:

Case I.

S. H., aged 34, married, was admitted to the Brompton Hospital on March 21st, 1919, under Dr. Perkins, with the following history:

In December, 1911, he states that he had "peritonitis," consisting of severe abdominal pain and constipation, which, however, cleared up after he was given an aperient.

On February 12th, 1912, he was admitted to this hospital under Dr. Perkins for pleurisy with effusion on the left side. *X*-ray examination showed the roots of both lungs to be opaque, with small densely opaque areas in the lung tissue (suggesting calcifying glands?) Only a small area of the inner portion of the diaphragm was visible on the left side. Obscuring the greater part of the left diaphragm and the lower ribs was a dense opacity, with a hard and definite border, extending upwards and outwards towards the axilla, becoming less opaque above, strongly suggestive of fluid (encysted).

On February 27th, 1912, the left pleura was punctured in the eighth space in the mid-axillary line, and some clear straw-coloured fluid was aspirated. The clinical laboratory report on the cytology of the pleural effusion showed:

Polymorphonuclear neutrophils ...	8	per cent.
Endothelial cells	15	,,
Small lymphocytes	77	,,
	100	

A few red cells were present. No reference in the report of the fluid was made to its appearance being "spangled."

On March 29th, 1912, he was sent to the Frimley Sanatorium, his general condition having improved. There was then dullness and diminished movement over the left side of his chest. The breath sounds were almost absent, and vocal resonance and vocal fremitus were diminished. After fifteen weeks' treatment at Frimley his general condition improved; he had gained 5 lb. in weight, and reached Grade VI, and the only physical signs he showed was an area of dullness at the left base, with fine crackling râles.

During the whole period of his stay at the sanatorium he was afebrile, and had a small amount of sputum on a few occasions only. On discharge he was able to resume his occupation as a glass cutter. After this he remained in fairly good health until October, 1918, when he had a sudden haemoptysis, bringing up about half a pint of blood.

On March 21st, 1919, when readmitted to the Brompton Hospital, his condition was as follows:

He looked decidedly ill, and had apparently lost weight. He had a cough and a good deal of muco-purulent expectoration. He complained of night sweats and dyspnoea, and his sputum was slightly coloured. There was limitation of movement over the whole of the left side of the chest. Vocal fremitus was increased at the left apex, and absent over the left base. There was impairment of the percussion note at the right apex, and slight impairment at the left apex. The note over the left base was dull.

On auscultation crepitations were heard at the left apex in front and behind, vocal resonance was increased, and pectoriloquy was present. Over an area extending from the fourth to the sixth intercostal spaces in the mid-axillary line there were numerous râles, but the breath sounds were barely audible. Râles were present behind, between the spine and the vertebral border of the scapula, and also round its inferior angle. At the left base in front breath sounds were absent, as was also vocal resonance. Behind, a few friction sounds were audible.

The apex beat was in the fifth intercostal space just internal to the mid-clavicular line. The liver, spleen, and kidneys were not palpable, and the urine was normal.

X-ray examination showed "Lessened expansion and translucency at both apices. The left apex is absolutely opaque. The heart is slightly displaced to the right, and there is a dense opacity with a well-defined edge on the left side suggesting pleural effusion."

Between April 16th and June 11th he had three pyrexial attacks, each attack lasting about a week; the temperature each time reached 102° and fell by lysis. In the intervals the temperature was normal. Each attack was accompanied by profuse expectoration, the last attack being the most severe, when, in two and a half hours, he expectorated 11 oz. of frothy muco-purulent sputum with an offensive odour. The last attack strongly suggested the presence of a cavity, bronchiectatic or tuberculous, and the physical signs found on auscultation were confirmatory.

On June 16th another *x*-ray examination was made, and the report showed "the left side of the diaphragm is raised and the stomach translucency can be made out. No excavation noted."

On June 17th three attempts were made by Dr. Burrell to produce an artificial pneumothorax in the seventh space in the mid-axillary line. At the third attempt, after the needle had been inserted to its utmost limit, about 10 c.cm. of straw-coloured fluid were drawn off. The pleura was found to be greatly thickened and of a corky consistence.

The bacteriological report on the effusion states: "The centrifuged deposit shows under the microscope large numbers of cholesterin crystals. No cellular elements are present."

No further attempt to produce an artificial pneumothorax was made on account of the dense adhesions.

Examination of his sputum had revealed the presence of tubercle bacilli on March 24th, July 8th, 9th, and 10th.

Since June 22nd he has made satisfactory progress, and his temperature has remained normal except on two occasions, the first on June 30th, when it rose to 100.4° and fell to normal the next day, and the second on August 4th, when it rose to 101.4°, and on August 9th fell to normal. His general condition has improved, and he was transferred to Frimley on September 3rd.

Case II.

D. B., aged 9, was admitted to the Brompton Hospital on April 7th, 1919, under Dr. Cecil Wall.

There was a history of pulmonary tuberculosis on his mother's side, two of her sisters and one niece having died of phthisis. He had an operation for empyema when 2 years old; whooping-cough when 3 years old; tonsils and adenoids removed in June, 1918; in March, 1919, he developed a pleural effusion whilst living at home, and 1½ pints of fluid were aspirated from the left side of his chest; this was "spangled" in appearance.

His condition on admission was as follows: He complained of a cough and occasional pain in the left side of his chest; he had some dyspnoea and had lost weight. His general condition was good. There was diffuse pulsation in the second and third intercostal spaces half an inch to the right of the right edge of the sternum, and the heart was found to be entirely over to the right of the sternum. There was an old empyema scar in the fourth space, about 3½ in. in length, the mid-point being in the left anterior axillary line. There was very slight movement of the left side of the chest, there was impairment of the note at the left apex, and there were weak breath sounds both in front and behind. There was absolute dullness from the third interspace downwards on the left side in front and behind; breath sounds, vocal resonance, and vocal fremitus were completely absent.

On April 8th the left side of his chest was explored, and about 10 c.cm. of golden-yellow coloured fluid was withdrawn. *X*-ray examination showed "a very sharply defined upper limit of opacity in the left side of the chest, the diaphragm on this side being obscured. The heart is considerably out to the right."

On April 16th 5 oz. of fluid were withdrawn from the left side of his chest, and on April 23rd 17 oz. more were aspirated. On April 30th the left side of the chest was again aspirated, and 34 oz. were drawn off. After this aspiration he vomited for about twenty-four hours. At this time the apex beat was one inch inside the left nipple line; there was dullness from the fifth interspace in front and from the inferior angle of the scapula behind downwards. The breath sounds were audible but considerably diminished.

On May 9th he had a rise of temperature (100°), his tongue was furred, and a few cervical glands were palpable. Nothing abnormal was felt in the abdomen. The heart was still slightly over to the right side of the sternum, and there was no diminution of dullness at the left base. He looked pale, and was quieter than was his wont.

On May 19th his temperature was steadily rising. The

abdomen was slightly distended, nothing abnormal was felt, and there was no tenderness on pressure. There was a "squeaking" bruit just to the left of the sternum, and pulsation to the right of the sternum; the bruit was in all probability cardio-pulmonary.

On May 21st his temperature had risen overnight to 102.4°. His pallor had increased, and he looked ill, and was constipated. His spleen was palpable but not tender, and the liver was not enlarged. Next day the left side of his chest was again aspirated, and 10 c.cm. of opaque, dark, amber-coloured fluid was withdrawn. A sediment appeared on allowing the fluid to stand, and on microscopic examination pus cells and a few cholesterin crystals were seen.

On May 24th his chest was aspirated and 18 oz. of fluid drawn off. The fluid was thicker in consistence than on former occasions; it was greenish-brown in colour and odourless. There was increased sediment, and microscopic examination showed a few cholesterin crystals and many pus cells. A culture of the pleural effusion showed: In aërobic culture, *Staphylococcus aureus;* anaërobic culture, sterile.

On May 30th, as the temperature had been fluctuating between 99.2° (morning) and 102.4° (evening) since May 17th, an operation was decided upon, and about one inch of the seventh rib was resected near the inferior border of the left scapula and 2 pints of pus evacuated. A drainage tube was inserted. Bacteriological examination of the pus revealed in culture a pure growth of *Staphylococcus aureus.*

After this he improved rapidly until June 13th, when he had a sudden rise of temperature to 102.4° and complained of a sore throat. There was a small patch of exudate on the left tonsil, and a few submaxillary glands were palpable. This quickly improved, and his temperature fell to normal on June 16th. On June 25th the left lung was apparently expanding well and the heart was in its normal position. There was still some discharge from the sinus. On July 8th his temperature was normal, his general condition had improved, and he was putting on weight.

He had now lost his cough, and has had no expectoration since his admission to the hospital.

Since compiling these notes he has been discharged from hospital and his condition on leaving was as follows: The breath sounds at the left base behind were clearly audible, but still diminished in front. The "squeaking" bruit had disappeared. The empyema wound was still discharging.

The first case was shown by Dr. Batty Shaw at the meeting of the Association of Physicians on July 12th. I am indebted to Dr. Perkins and Dr. Cecil Wall respectively for permission to publish these cases.

A PERICARDIAL EFFUSION OF "GOLD-PAINT" APPEARANCE DUE TO THE PRESENCE OF CHOLESTERIN.

BY

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THE significance of cholesterin in the body fluids is little understood. In a recent monograph on this subject Adrien Grigaut describes the presence of cholesterin in pleural effusions and hydroceles, but I can find no record of the occurrence of cholesterin in a pericardial effusion.

A. G., aged 32 years, a chauffeur, was admitted to University College Hospital under Dr. H. Batty Shaw on October 15th, 1918. He gave a history of the following symptoms, of five years' duration: Roughness and dryness of the skin; loss of hair; thickness of speech; and, during the last few months, swelling of the feet, legs, and abdomen, and shortness of breath.

His features were heavy, skin harsh and dry, hair coarse and scanty. He was orthopnoeic, cyanosed, and slightly jaundiced. There was a well marked pulsus paradoxus; trace of albumin in the urine; systolic blood pressure, 100 mm.

Examination of the chest showed a great increase in the area of precordial dullness; *x* rays confirmed, and in the photograph a definite boss could be seen on the right lower border of the shadow. The heart sounds were faintly audible to the right of the sternum.

The condition of the skin and hair was attributed to hypothyroidism; the causation of the pericardial effusion remained obscure. Under treatment with thyroid extract and diuretics his condition improved, although *x*-ray examination showed no alteration in the pericardial effusion, and on his discharge from hospital in February he was able to resume work and continued at it for six weeks.

He was readmitted to hospital on April 8th, 1919, with severe dyspnoea, weak rapid pulse, cyanosis, jaundice, marked oedema, and ascites. His condition improved but little, and an a tack of bronchitis caused a furt er embarrassment of the overtaxed and failing heart; it was decided to open the pericardium.

Mr. Gwynne Williams carried out the operation under regional anaesthesia on May 13th. Over three pints were withdrawn of an opaque dark brown fluid of a scintillating gold paint appearance. Laboratory examination showed the presence of large quantities of cholesterin crystals; no bacteria were found.

The cardiac condition rapidly improved, and the patient was discharged early in June, free from symptoms. The last *x*-ray photograph shows a slight diminution in the area of opacity, and a dense area has developed over the right base.

A PRELIMINARY NOTE ON THE TREATMENT OF INOPERABLE CARCINOMA WITH SELENIUM.

BY

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FOLLOWING the work of Wassermann and Keyser[1] on the treatment of mouse cancer with selenium and eosin, a number of observations were recorded in France and elsewhere on the Continent on the effect of injections of colloidal selenium on human patients with inoperable carcinoma. The pharmacology and low toxicity of this agent were investigated by Duhamel[2] in 1912. Unfortunately the earliest publication in English on the subject[3] attributed a total therapeutic inefficacy to the preparation; and it may be that to this fact must be attributed the lack of notice which in England alone has been accorded to this work.

Previous Reports.

A brief summary of the more important series of observations hitherto published may be useful.

I. Cade and Girard, 8 cases; 5 c.cm. of 0.02 per cent. selenium up to twenty intramuscular injections. No untoward effects. Definite benefit in 5 cases.

II. Bougeant and Galliot, 12 cases; 5 c.cm. of 0.02 per cent. selenium in serum up to (in one case) fifty intravenous injections. Benefit in all cases.

III. A. Blumenthal, 6 cases; 5 c.cm. of 0.02 per cent. selenium up to ten intravenous injections. One case died from sloughing carcinoma of uterus; one not reported; two completely relieved of symptoms; two benefited.

IV. Trinkler, 4 cases; 5 c.cm. of 0.02 per cent. selenium up to eight subcutaneous injections. Some pain. All improved.

V. Touche, 27 cases; 5 c.cm. of 0.02 per cent. selenium; three weekly intramuscular injections, repeated if required. In one case possibly accelerated death (from hemiplegia); seven cases gave negative results; three slightly improved; twelve markedly improved; one showed no macroscopic trace after death. In three the disease appeared to be arrested.

VI. Hope,[4] 2 cases; 3 c.cm. of 0.02 per cent. selenium thrice weekly up to five doses close to growth. Both improved.

VII. Carles and Vieron, 10 cases; 2 to 5 c.cm. of 0.02 per cent. selenium up to thirty intramuscular injections. Six cases improved.

Personal Observations.

Recently, when I wished to try the effect of copper on a patient with inoperable carcinoma of the stomach, Mr. T. P. Legg, C.M.G., M.S., under whose care the patient was, was good enough to suggest treatment with selenium. Since then, by the kindness of several surgeons, I have been able, at King's College Hospital and at the Throat Department of Bristol Royal Infirmary, to observe the effect on 24 cases. It is as yet too early to pronounce finally on the value of this agent. But pending the completion of treatment in certain of these cases it may be of interest to record the results, in a general way, of my observations as far as they go.

Selenium as available for injection is a "protected" colloidal suspension of erythro-selenium beta, prepared chemically or electrically, and is a dichroic coral-red fluid. It appears not to be very stable; in old preparations the metal is found to be precipitated. It is isotonized, if this has not already been done, before injection, by the addition of sodium chloride solution. I have been careful to record the strength of "solution" used, as there are at least three strengths on the market. I inject a dose representing 0.0005 to 0.005 gram of the metal, preferably intravenously. Intramuscularly it is painless, and this may

prove the method of choice in ambulatory cases, or for those who can only attend at intervals, as it is probably more uniformly absorbed. Injection into the subcutaneous tissues and in the intermuscular septa is slightly painful. The biggest dose I have given is 0.005 gram every day. Several cases have already received 0.1 gram of the metal. In therapeutic doses it appears to be absolutely non-toxic, and is said to non-cumulative.

A transient general reaction—slight malaise and a rise of 1° to 2° F. in temperature—occurs occasionally with the earlier injections. It is more marked in subjects with extensive growths. Later, in those cases in which the tumour can be observed, after four or five injections a focal reaction is to be noted. The tumour becomes softer, appears better supplied with blood and slightly oedematous. I have not observed any definite necrosis or sloughing. The beneficial results observed in greater or less degree in nineteen cases have included:

1. Diminution or disappearance of pain. This is the earliest and most striking result.
2. Diminution in tenderness.
3. Healing of ulcerated surfaces; decrease of discharge.
4. Diminution in size of tumour and secondary deposits.
5. Increased mobility.
6. Improvement in anaemia and cachexia. This is the second most striking feature.
7. Improved sleep.
8. Increase in weight (in two cases).
9. Improved memory and general health (one case).

The improvement has been most marked in carcinoma of the alimentary tract.

In carcinoma of the larynx (8 cases) it appears advisable to proceed cautiously so that the treatment may be modified or suspended in the event of a considerable focal reaction.

It is my intention to afford fuller details of the more interesting cases in a later and amplified communication. I have seen nothing so far to suggest that selenium will cure carcinoma. It appears, however, to be a simple, safe, and not too expensive remedy, and the degree of relief already witnessed is sufficiently considerable to justify the assertion that in the treatment of inoperable carcinoma colloidal selenium deserves more attention than it has received in this country.

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SURGICAL ANAESTHESIA AMONGST BRITISH TROOPS IN THE TROPICS (INDIA).

BY

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The art of inducing and maintaining anaesthesia amongst Europeans in the tropics has definite characteristics distinguishing and complicating the action of general anaesthetics in contradistinction to their administration in England.

During the last three and a half years I have been in India, and most of that time in Bombay, where in the various war hospitals I have had ample opportunity (in the capacity of specialist in anaesthesia for two years) of noting the mode of action mainly of ether and chloroform.

Of recent years it has been more fully realized that a skilled anaesthetist is as necessary as a skilled surgeon; and this obtains more especially in the tropics, where climatic and temperamental vicissitudes prevail. The Bombay war hospitals are devoted almost entirely to troops invalided from field service, and in the vast majority of cases from Mesopotamia. As in France, so in greater degree in Mesopotamia, the strain of active service has the effect in many instances of inducing a highly nervous condition, especially in the highly strung and primarily neurotic subject, but evident also in the phlegmatic temperament. In my opinion, in the tropics the subject calling for special care in anaesthesia is the thin and anaemic youth of from 18 to 25 years, perhaps recently out from home and unacclimatized, and particularly the young officer who has had much responsibility thrown on his shoulders, where an error of judgement in the front line might court disaster. Of the two, it is rather the full-blooded beer drinker that I would prefer to have to anaesthetize in the tropics; he will doubtless cause trouble during induction, from struggling, etc., but he will be unlikely to display evidence of collapse and failure of pulse and respiration, or both, which is always in view in the former type.

Irregular and often unsuitable food while on active service also leaves its mark. In a tropical country the food question is often very difficult, especially in the front lines, for bully beef and biscuits predominate, vegetables are often a rare luxury, and a temperature of 120° F. does not add to freshness of the food or to the comfort of the surroundings.

Excessive smoking also plays its untoward part in predisposing to tachycardia and cachexia. Moreover, the climate and surroundings do not permit of entertainments and healthy sports to the same extent as in a non-tropical zone to divert the soldier's thoughts and keep him physically fit.

Choice of Anaesthetic.

Ether.—I have been frequently told by medical men in India that ether, at any rate by the open method, cannot be employed in India. This theory I have found to be entirely erroneous. In Bombay, though a moist climate, ether can be administered, either pure by the open method, or as a mixture of ether and chloroform; if pure ether is used I find very little more ether is used than at home. "Up country," with a dry climate and a temperature well over 100° F., open ether can be given satisfactorily, but it is necessarily somewhat more extravagant than in England owing to the atmosphere. In Bombay, for routine administration I find ether 3 parts and chloroform 1 p rt a very convenient mixture, and patients remain comfortably "under" with the same ease as with the commonly used C.E. mixture at home—(chloroform 2 parts, ether 3 parts). A further dilution still with ether is frequently advantageous, and in serious cases pure open ether is indicated. Ether has been procurable during the last two years, especially at the war hospitals, but during the later months of 1915 and early in 1916 it was extremely difficult to obtain it suitable for general anaesthesia (specific gravity 0.720). The whole supply of ether is imported, and it is mainly owing to the transport difficulty, which in India has been acute, that I have not habitually used pure open ether as at home.

Chloroform.—A relatively dangerous drug in the tropics, especially for those debilitated after field service. Its use in the pure state should, I think, be almost entirely confined to operations requiring Junker's inhaler. It predisposes to shock, and the patient is liable to inhale a toxic dose. Chloroform is always easily procurable, and Duncan's White Label is plentiful, and though one has to work with other brands occasionally, I have had no occasion to suspect their quality. It is necessary in such a climate to keep stock bottles in a cool and dark place.

Mode of Administration.

A preliminary injection of morphine and atropine is convenient in a nervous subject, but generally quite unnecessary even with open ether; the secretion of mucus is usually slight and rarely interferes with the administration; moreover, surrounding the mask with towels or gauze to any extent is superfluous. Should an injection have been decided on, I have found morphine gr. $\frac{1}{4}$ and atropine gr. $\frac{1}{150}$ half an hour before operation satisfactory. The patient should then not be allowed to walk to the theatre, but should be carried on a stretcher.

A degree of disordered action of the heart unnoticeable ordinarily becomes very evident before an operation, the beat becoming markedly forceable, even to a thrill, and various bruits may be present, which disappear when the stage of surgical anaesthesia is reached.

Although patients "go under" as easily and as quickly as in England, there is increased danger in the tropics during the induction stage, especially with any struggling,

and pushing at this stage may court disaster, particularly with chloroform.

The tendency to failure of heart and respiration seems greater than at home, probably climatic in origin, and is undoubtedly aggravated by the highly nervous condition in which so many patients come to operation.

A somewhat lighter anaesthesia can be maintained than in England. The corneal reflex is rarely lost, its presence even during the primary skin incision seems to have little effect. In one instance, as far as I am aware a unique one, at the close of the operation when the patient was coming round, but with no evidence of retching, he suddenly sneezed; this was followed immediately by complete cessation of respiration, which had to be maintained artificially for over five minutes, with ultimate recovery. The pulse was good throughout.

Sweating is often profuse, especially in a subject in a bad condition; this is undoubtedly largely climatic; for this reason a fan is contraindicated in a theatre if a laparotomy or other serious operation is in progress.

Pituitrin is a drug I have found it necessary to resort to more frequently during operations than at home, with the same valuable results in augmenting the heart's action and countering shock.

Post-anaesthetic vomiting is rare and never troublesome, but a little retching before leaving the table is common. I have seen no case of post-anaesthetic acidosis or delayed poisoning in the tropics.

Nitrous oxide is little used in India, but anaesthesia with it is in every way satisfactory. The gas is now made locally, but is rarely obtainable except for dental work.

Ethyl chloride I have never seen used in India as a general anaesthetic; it is too volatile for the climate.

In the course of a considerable experience in India I have been perhaps fortunate in having no fatalities. Extreme care, continual watching of the patient, maintaining an even anaesthesia, and the use of a suitable anaesthetic or mixture, together constitute in my opinion the secret of obtaining satisfactory results in the tropics.

NOTES ON A CASE OF POISONING BY HYDROQUINONE.

BY

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THE three isomeric dihydroxybenzenes, $C_6H_4(OH)_2$, possess toxic properties in varying degree. It is stated that the toxicity of the various phenols increases in general with the number of hydroxyl groups. Resorcinol (meta-dihydroxybenzene) is an exception, being less toxic than ordinary phenol (C_6H_5OH). Both hydroquinone (para-dihydroxybenzene) and catechol (ortho-dihydroxybenzene) are stated to be more toxic.

Cushny[1] states:

> The three dihydroxybenzenes resemble carbolic acid in their effects, but produce more intense stimulation of the central nervous system, for convulsions have been observed in man after their use. This is especially true for catechol and hydroquinone, resorcin being much less toxic than these.

Records of cases of poisoning by the dihydroxybenzenes are very few in number.

Dixon Mann records a case by Murrell[2] of poisoning by resorcinol, and also states that "in another case epileptiform convulsions occurred,"[3] but no record of a case of hydroquinone poisoning is mentioned. A case is also recorded[4] in which 1 gram of resorcinol gave rise to perspiration, retraction of the head, and muscular stiffness. J. Gadamer[5] states with regard to resorcinol, "although the least poisonous of the phenols, it has frequently given rise to serious poisoning." In one case 10 grams of resorcinol produced profuse perspiration, dyspnoea, convulsions, opisthotony, and loss of consciousness.

We have found no detailed record of any cases of hydroquinone poisoning; it is, however, stated[6] that doses of 0.5 to 1 gram have frequently caused slight poisoning, accompanied by sickness, giddiness, delirium, and collapse.

The following case of poisoning by hydroquinone (followed by recovery) may, in the absence of many such records, be of interest.

Clinical History.

D. H., aged 21, single, was admitted to the Warneford Hospital, Leamington, on June 26th, at 9 p.m., as a supposed case of poisoning, with the history of being suddenly taken ill. On admission patient was unconscious and pallid in appearance. Some blood-stained foam was observed at the mouth, the lips were pale, but no staining was seen round the mouth. No odour of the breath was discerned; the skin was cold and clammy. The temperature was subnormal, the pulse fast and feeble. The pupils were equal, medium in size, and reacting to light; the conjunctivae insensitive to touch. The knee-jerks were absent, there was no ankle or patellar clonus, the plantar reflex was present. On auscultation a soft mitral systolic bruit was heard. The lungs were clear. No vomiting or diarrhoea was present. There was retention of urine, and examination of a catheter specimen showed the urine to be greenish in colour, acid, specific gravity 1010, a heavy cloud of albumin, no sugar.

About ten minutes after admission the patient had a violent convulsion, in which the head was thrown back, the eyes looked upwards, and the pupils were dilated. The fingers were bent into a cone shape, the thumb bent across the palm of the hand, and the whole body was flung into violent clonic movements. Respiration became very shallow until imperceptible, after which it began to improve. This convulsion was followed soon afterwards by another, and at short intervals by other convulsions to the number of eight. After 10.30 p.m. (an hour and a half after admission) no further convulsions were observed. From 10.30 p.m. till midnight the patient remained in a semi-conscious condition, but after midnight consciousness was recovered, and though vomiting several times she passed a fairly comfortable night.

The patient was treated as a case of poisoning, and the stomach washed out frequently with sterile water. Ether was given subcutaneously, and the bodily warmth kept up. Next day she was fully conscious, but still appeared very weak. The knee-jerks were still absent, and a sample of urine passed normally showed a specific gravity 1023, colour dark, but no albumin. On June 28th knee-jerks were present, and from that date on the patient progressed steadily.

As no history could be obtained of the patient taking any drug previous to admission, and as she stated she had suffered from no previous illness, a sample of the first stomach washings (obtained immediately after admission) was sent for analysis.

Chemical Analysis.

Hydroquinone, or quinol (para-dihydroxybenzene) is a crystalline substance readily soluble in water, alcohol and ether. It has, like its isomers, a limited use in medicine, but considerable application in photography.

In the present case the stomach washings were submitted to chemical examination for alkaloids, glucosides etc., by a modified Stas-Otto process. The resulting aqueous solution was extracted whilst still in an acid condition, with ether, and the ethereal extract evaporated to dryness. A fine crystalline residue was obtained which was further purified by dissolving in alcohol and treating with a small quantity of blood charcoal, and the extract was evaporated to dryness. After drying at 100° C. for one hour the melting point was taken. The substance began to soften at 163° C., and completely melted at 166° C. It had a sweetish taste, was readily soluble in water, and gave the following reactions:

It reduced silver nitrate solution in the cold. On alkalizing with sodium hydrate solution the liquid rapidly darkened. Fehling solution was reduced without heating. Froehde's reagent gave deep purple, gradually becoming chocolate brown and later green and greenish-blue. Millon's reagent gave yellow colour, gradually deepening to orange-yellow, depositing a reddish-orange coloured precipitate.

The melting point of the purified residue mixed with an equal amount of pure hydroquinone (melting point 169° C.) was found to be 164 to 165° C. [It may be stated that pure hydroquinone, originally melting at 169° C., extracted by ether from aqueous solution and the ethereal solution evaporated to dryness, further dried at 100° C. for two hours, gives a melting point of 166° C.]

The amount of hydroquinone in the portion of the stomach washings submitted for analysis was 2 grains. The total amount of the first stomach washings (of which only 8 oz. were sent for analysis) was 4 pints. The quantity of hydroquinone present in the whole of these washings was therefore 20 grains. It was impossible to obtain any data which would enable us to arrive at a conclusion as to the amount of the drug taken. The washings were further examined for poisons other than hydroquinone (especially strychnine), but none was detected.

We are indebted to Dr. Cole, visiting physician to the Warneford Hospital, for permission to publish these notes; and to Dr. P. Haas of University College for valued co-operation.

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Memoranda:
MEDICAL, SURGICAL, OBSTETRICAL.

APPARENT INTUSSUSCEPTION RELIEVED BY ACCIDENTAL JOLTING.

SISTER —— complained of mild colicky pain about 2 p.m. on August 25th, 1919. It had been noticed at long intervals for about twenty-four hours, but she had felt neither need nor desire to go off duty. Nothing in the diet seemed likely to have disagreed, but she was advised to take a dose of castor oil and rest.

Not appreciating oil, and being a dispenser, she preferred and took two grains of calomel and five minims of tr. chlorof. et morphinae, but vomited it almost immediately. Within ten minutes she vomited three times, bringing up partially digested food but no bile, and the vomit was not unduly acid. She had had a motion the day previously and that same morning.

During the afternoon she had recurring colicky pain and passed one motion; the pain steadily increased in frequency (about ten minutes' interval) and in intensity, till at 6 p.m. she went to bed and sought advice. The tongue was coated and white, the expression of the face pinched, and the pulse depressed and somewhat slow; the temperature was 97°; the abdomen looked natural, was not unduly tympanitic, and not tender. Pain was referred to the right iliac fossa and localized over the caecum. Pressure was fairly well borne, even during a rather sharp paroxysm, which lasted almost a minute, but some relief was felt on removing the pressure. No swelling was felt; there was no hernia at the usual sites. A mixture containing hyoscyamus, compound tincture of cardamoms, dilute hydrocyanic acid and aromatic spirits of ammonia was immediately vomited. Hot water was ordered to be given in small quantities and nothing else. A hot binder was applied. She stated that her bowels had acted twice (but with formed motion) during the afternoon.

At 8.30 p.m. she was having violent paroxysms of pain at intervals of five minutes. The lips were blue, the nose pinched, the expression anxious, and the general appearance and feeling that of desperate illness. Even hot water was not retained; there had been continual sickness and constant desire to go to stool; one loose discharge was passed during vomiting, but this, unfortunately, was not seen. The extremities were cold and clammy. The pulse was still slow between the pain attacks, but before and during attack became small and "running." The pain, still localized and griping (so violent as to cause moaning in a "good" patient), was edging inwards, above the umbilicus, to the mid-line. Still no swelling could be detected on palpation; gurgling was heard in the bowel over the site of pain, but nowhere else. The percussion note was perhaps dulled, but there was no absolute dullness. Tenderness was increasing.

Commencing intussusception being diagnosed, the patient was placed in an ambulance and started for hospital, accompanied by the doctor; just before starting she vomited a clear, non-acid watery fluid.

For a short time pain, tenesmus and nausea continued, but just as a paroxysm started the ambulance "jumped" at a level crossing and she was swung sharply up, falling gently back into her supine position. Relief was immediate; two minutes later the lips regained colour, the face looked relieved, and she said she felt well enough to get up. Ten minutes later the driver was asked to return; no more pain occurred, and only tenderness remained; shortly after she was in bed and smiling. Within a few hours a small quantity of brown mucus was voided per anum.

GEORGE S. WARE,
Willesden, N.W. Captain R.A.M.C.

ACUTE SUFFOCATIVE CATARRH.

ON the morning of September 9th M. B., female, aged 7½ years, previously healthy, woke up feeling out of sorts, and complaining of some soreness of the throat. I saw her at 10.30 a.m.; her pharynx and tonsils were somewhat inflamed; temperature 103°; pulse 120, regular; respirations 30 per minute; no cough; nothing abnormal made out in chest, but she was constipated and in an extremely excitable condition.

I was called to see her again at 6 p.m. She had had a movement of the bowels and immediately a convulsion began. Her mother stated that she had complained of difficulty in getting her breath at times during the day. The convulsions were very marked; she was quite unconscious; pupils equal and dilated; temperature 103.5°; pulse 120, regular; respirations 40 per minute; no rigidity of neck, and no cough. She brought up quantities of pale brown froth, and occasionally about a tablespoonful of "prune juice." We swabbed out her throat frequently but could not at any time get any cough reflex, even when she was conscious later on. A colleague and myself carefully examined her throat; nothing was found except the redness previously mentioned; her heart was normal; inspiration and expiration were apparently normal and neither was exaggerated; there was no sucking in of intercostal spaces; no consolidation, but fine moist râles were to be heard all over the chest.

At about 7.30 she became conscious and complained of pain over the pit of the stomach and difficulty in breathing, and the nurse in charge was instructed to send if anything further developed. At 11.30 I was again summoned. She had had convulsions off and on since I left. She still brought up brown froth and "prune juice." There was no cough, and no cough reflex could be obtained. Her breathing was shallow—44 per minute. The air entered the lungs fairly well, but moist fine râles were heard all over both lungs. Her lips were blue and her nails and fingers gradually assumed the same colour. Her pulse was 160, poor tension and volume. Gradually the convulsions ceased. She passed into a comatose condition. Respirations became Cheyne-Stokes. She ceased to bring up froth and "prune juice," and, in spite of stimulants and artificial respiration, her heart failed and she died at 1 a.m.

It is interesting to note that her three brothers all developed a typical chicken-pox rash next day. It would appear that the above was a toxaemic condition, due to paralysis of vagal nerve endings in the respiratory passages.

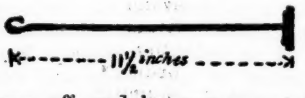
Permission for a necropsy was not obtained.

New Brighton. C. O. JONES, M.D., M.Sc., M.R.C.S.

PENETRATING WOUND OF PELVIS WITHOUT INJURY OF PERITONEUM.

A BOY of 15, experimenting with a pulley and tackle, was climbing a rope, when he fell some 5 ft. in a sitting posture.

On the ground immediately beneath him there was standing erect the weight holder of a weighing machine, of which a sketch is given. The hook end entered his pelvis about half an inch to the right of the anus, and when I saw him he was lying on the abdomen, and about 4 in. of the weight were protruding, while the hook end could be felt under the abdominal wall. The weight was sawn off and he was removed to hospital. With the buttocks supported on sandbags I performed a laparotomy, and to my astonishment found no signs of any injury to any of the viscera, nor was I able to feel any bare metal.



The hook was presenting about 2 in. to the left of the middle line from a point midway between pubes and umbilicus, and had evidently passed between the peritoneum and the parietes. By retracting the margin of the incision to this extent it was easily withdrawn, and the patient has made an uninterrupted recovery.

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SEPARATION OF TIP OF NOSE WITH COMPLETE PRIMARY UNION.

THE case of primary union of the separated tip of a man's nose, recorded in your issue of September 27th by Sir J. O. Skevington of Windsor, reminds me of a somewhat similar case which occurred many years ago when I was a boy (and long before the days of antiseptic or saline dressings) in the practice of my father, the late Dr. David Hadden of Skibbereen. In a street row the tip of a man's

nose was bitten off! He ran at once to my father's surgery with the piece of his nose in his pocket. After being stitched on the result was as satisfactory as in the case at Windsor.

Portatown. W. E. HADDEN, M.D.

Reviews.

THE DIAGNOSIS AND TREATMENT OF VENEREAL DISEASES.

IT is a sign of the times that a book entitled *Venereal Diseases*[1] has been written by a clinician and a pathologist in collaboration, and Dr. WATSON and Dr. BROWNING are to be congratulated on the result of their combined labours—a book of small dimensions but containing nevertheless a full and practical account of these very important d seases.

The first half deals with syphilitic infections, and here the advantage of the pathologist's special knowledge is very evident. Since the discovery of the *Spirochaeta pallida* by Schaudinn in 1905 laboratory investigations have assumed a high and important place in the diagnosis and treatment of syphilis. The careful description of the technique employed in the examination of the exudate from chancres, and (in an appendix) of the method followed by Dr. Browning in carrying out the "Wassermann" reaction, are thus of peculiar value. The authors also give in its proper place the interpretation of these results, but, while emphasizing their importance, are careful not to advocate reliance on them to the exclusion of clinical evidence. Thus, although more space is allotted to laboratory methods than is usual in books of this kind, the balance is so well maintained that a clearer conception of disease results.

It should not be assumed from what has been said that the clinical part has been neglected; it is fully considered and illustrated by numerous plates, some in colour. In discussing treatment the collaborators are equally happy, the schemes are well conceived and practical, and while chief place is naturally given to salvarsan and its substitutes, subsequent prolonged courses of mercury are insisted upon. This advice will appeal with particular force to those workers who are now seeing the many unsatisfactory results of the short intensive methods.

While for syphilis much can be accomplished, for gonorrhoea many things may be done. These and other matters are discussed in the second part, where gonorrhoeal infections are considered. The maxim that "the first attack of gonorrhoea is never cured" finds no place here. Various and elaborate methods for eliminating the gonococcus from the genito-urinary tract are explained, and descriptions are given of the manner of employing the complicated apparatus of the surgeon-instrumentalist. The list on p. 201 of seven chosen methods of treatment used in chronic gonorrhoea is evidence of what it is possible to do in the more resistant forms of this complaint.

The book is a carefully thought out and accurate exposition of scientific medicine, and is of special value because of the practical manner in which it deals with its subject.

TREATMENT OF MALARIA.

IN his book on *Malaria and Its Treatment*[2] Captain ALPORT gives a great deal of information and his own experiences in a form that should be of use to others besides members of the R.A.M.C. The book deals almost entirely with his work in the Balkans; it begins with a short account of the three types of malarial parasites, and the diagnosis and prophylaxis of malaria; of the prophylactic exhibition of quinine as a routine he speaks slightingly.

After a brief chapter on the clinical features of acute malaria he comes to the subject of its treatment; he has treated about 12,000 cases himself in Macedonia. The best salt of quinine, he says, is the bihydrochloride, given in solution, whether by the mouth, by deep intramuscular (gluteal) injection, or by intravenous injection. He is a believer in the large dose; from 10 to 40 grains for single administration, and 30 to 120 grains within a period of twelve hours in cases of emergency. The intravenous method is recommended in cases with mental symptoms, drowsiness, noisiness, aphasia, twitchings; in cases of severe exhaustion, anaemia, cachexia, jaundice; and in cases of blackwater or bilious remittent fever; from 20 to 40 grains of the salt dissolved in 8 ounces of boiled water are allowed to run slowly into a vein through a salvarsan needle. As an instance of the large doses successfully employed by Captain Alport may be quoted the case of a man of 41 with cerebral malaria, who received 1,880 grains of quinine salt in the course of fifty-six days with excellent results; the drug must be pushed in the early stages—say 100 grains intravenously or intramuscularly in the first twelve hours, 160 grains in the first thirty-six hours, and 200 grains in the first sixty hours.

Details of the methods of treatment adopted are given freely, with many illustrative cases, both of cerebral malaria and of pernicious malaria with cardiac symptoms and collapse. In the treatment of chronic malaria the author again advises that quinine should not be stinted; he speaks of 45 grains a day for a month, and, if relapse occurs meanwhile, recommends that the dose should be increased to 60 grains a day for a week. Quinine deafness, he notes, may be treated with bromides. For chronic malarial anaemia he advises the use of quinine and galyl by intravenous injection, or some other arsenical preparation by the mouth. In his chapter on blackwater fever, which he attributes to neglect of quinine in the treatment of malaria, the author advises the liberal use of intravenous and intramuscular quinine; one patient, for example, averaged over 47 grains a day for six weeks. It is encouraging to read that Captain Alport has only met with four cases of quinine blindness in ten years' experience of the treatment of malaria; all recovered their sight, possibly with some contraction of the field of vision.

The author writes with the conviction born of great experience, and his book, which loses nothing by being perhaps a little polemical, may be recommended warmly to the attention of all medical men who have to treat acute or chronic malaria. It is well illustrated.

WAR NEUROSES.

A CHEAP reprint of the excellent little volume on *Shell Shock and its Lessons*,[3] by Professor G. ELLIOT SMITH and Mr. T. H. PEAR, is particularly opportune at the present time. The problem of the war neuroses is by no means solved by the termination of hostilities and the consequent removal of the stress which has been instrumental in their causation. There are still a large number of "shell shock" cases in the country, and though many of them have been cured of their gross hysterical symptoms, yet the habit of maladaptation has been formed and they are drifting into a condition of chronic neurasthenia. Such a book as this, therefore, serves a most useful purpose, both for the intelligent layman, to whom the whole subject is somewhat of a mystery, and for the general practitioner, who will find in it valuable indications of the direction in which treatment may be usefully applied.

After a discussion of the nature of the war neuroses, in which stress is laid on the psychogenetic factors instrumental in their production, the question of treatment receives detailed consideration. The methods of isolation, suggestion, hypnosis, "rational treatment," and work-therapy are described and their limitations indicated. The authors themselves favour the method of psychological analysis and re-education, which, after all, would seem to be the most scientific method of treatment and the one which promises the most permanent results, since it aims at finding out the mental conflict at the root of the neurosis and leads the patient back to mental health by his own intelligent co-operation and by the development of insight and self-understanding. The last chapters of the book deal with the lessons that have been learnt from experience of the war neuroses and their application to the wider social problem of the treatment of the psychoses and neuroses generally. Strong criticism is levelled at the

[1] *Venereal Diseases.* By C. H. Browning, M.D., D.P.H., and David Watson, M.B., C.M. London: Henry Frowde, and Hodder and Stoughton. 1919. (Cr. 8vo, pp. xv + 336; 50 figures. 16s. net.)

[2] *Malaria and Its Treatment: In the Line and at the Base.* By Captain A. Cecil Alport, R.A.M.C.(T.), M.B., Ch.B.Edin. London: John Bale, Sons, and Danielsson, Ltd. 1919. (Demy 8vo, pp. xii + 279; illustrated. 21s. net.)

[3] *Shell Shock and its Lessons.* By Professor G. Elliot Smith, M.D., F.R.S., and T. H. Pear, M.A., B.Sc. London: Longmans, Green and Co. Cheap edition. (Cr. 8vo, pp. xv + 135. 1s. 6d. net.)

inadequate facilities which obtain in this country for the teaching and treatment of mental disorder, and valuable suggestions are made as to the directions in which reform is necessary. These views are expressed in a restrained but convincing fashion and should exert considerable influence.

One criticism would seem to be indicated. The term "shell shock" is generally recognized as most unfortunate and misleading from nearly every point of view. It is true that the term is firmly fixed in the mind of the public, and they will thus understand to what the title of the book refers and therefore be more likely to read it. This is all to the good and it is eminently desirable that the book should reach the general public, but it nevertheless seems a pity that this term should become still more deeply rooted in the popular and even in the medical mind than it already is. As a matter of fact, the authors' whole treatment of the subject in this volume is in itself a most powerful argument against the retention of this particular term as one suitable to include the war neuroses.

MILITARY MEDICAL MANUALS.

Early in the recent war the French took the opportunity to begin the publication of a series of manuals dealing with the special medical and surgical problems, researches, and methods brought into prominence by the results of enemy activity. These admirable and up-to-date volumes were gathered together to form the French "Collection Horizon," appropriately named after the colour of the French soldier's uniform, and many of them have been translated into English, and published in the "Military Medical Manuals"[4] series, under the general editorship of Sir Alfred Keogh. Reviews and notices of a number of these volumes, whether in French or English, have been published in the pages of this journal during the last three years; it may safely be said that the books have been of the greatest service to physicians and surgeons, both in the field and at home, and that their authors and translators have maintained exceptionally high standards of literary skill and practical utility in their production. Dealing as they do with the experiences gained in war, these "Manuals" lose interest for the medical reader now that the war is over; unjustly so in many cases, for much of what is to be read in them finds application to the accidents of peace no less than to those of war. We append a list of the titles of these well-written and well-illustrated volumes, recommending them strongly to the attention of medical practitioners interested in the various subjects with which they deal; the price of each volume is 7s. 6d. net, except in the few cases noted otherwise: "Typhoid Fevers and Paratyphoid Fevers"; "Dysenteries, Cholera, and Exanthematic Typhus"; "Abnormal Forms of Tetanus"; "Malaria"; "Syphilis and the Army"; "The Psychoneuroses of War"; "The Clinical Forms of Nerve Lesions"; "The Treatment and Repair of Nerve Lesions"; "Hysteria or Pithiatism and Reflex Nervous Disorders"; "Electrodiagnosis in War." The remaining volumes are of interest particularly to surgeons and to specialists: "The Treatment of Infected Wounds" (6s. net); "The Treatment of Fractures," in two volumes; "Fractures of the Lower Jaw"; "Fractures of the Orbit and Injuries of the Eye in War"; "Wounds of the Skull and Brain" (8s. 6d. net); "Localization and Extraction of Projectiles" (12s. 6d. net); "Wounds of the Abdomen" (8s. 6d. net); "Wounds of the Vessels"; "War Otitis and War Deafness"; "The After-Effects of Wounds of Bones and Joints"; and "Artificial Limbs."

NOTES ON BOOKS.

The fourth edition of Professor Bing's Compendium of regional diagnosis in affections of the brain and spinal cord,[5] revised and brought up to date so as to be of utility in the surgery of war as well as of peace, is a book written for the general practitioner of medicine. It describes the symptoms of nervous disorders in terms based on their pathology, and is both clearly written and well illustrated with diagrams, many of which gain additional lucidity by being coloured. The second edition of Dr. F. S. Arnold's English translation of an earlier edition of Professor Bing's book was reviewed in this journal six years ago; the new edition of the German original may be recommended to medical men and students to whom that language is not objectionable.

Dr. J. Lawson Dick's little book on *Defective Housing and the Growth of Children*,[6] written for the layman as well as the general practitioner of medicine, gives a straightforward account of the way in which slum life tends to produce rickets in infants and children. The matter is one of no little importance when public attention is concentrated on public health to an extent unknown before the war. While the precise details of its etiology still remain to be found out, rickets can be certainly set down as a "deficiency disease," primarily dependent upon the administration of an inadequate diet. But it has long been known that fresh air and sunlight are the determined foes of rickets; thus it has been recorded as a common disease in certain sunless Scandinavian valleys, but rare in the adjoining countryside where the conditions of life were identical but for the fact that the dwelling-houses were not cut off from the sunlight. It cannot be denied that rickets is a disorder far too common in British towns at the present time; the remedy, as Dr. Dick points out, lies in improving the food and the housing of our children.

In *Preparing for Womanhood*,[7] by Dr. E. B. Lowry, we have a simple easily-written volume of general and special advice to girls of from 14 to 21 years of age, which many young women will doubtless find very helpful. We would specially commend the common-sense chapter on "Home-making."

[4] London: University of London Press, Ltd.

[5] *Kompendium der topischen Gehirn- und Rückenmarksdiagnostik.* By Robert Bing, a.o. Professor an der Universität Basel. Fourth edition. Berlin and Vienna: Urban and Schwarzenberg. 1919. (Sup. roy. 8vo, pp. viii+235; 97 figs. Mk. 16; bound, Mk. 20.)

[6] *Defective Housing and the Growth of Children.* By J. Lawson Dick, M.D., F.R.C.S. London: George Allen and Unwin, Ltd. 1919. (Cr. 8vo, pp. 94. 3s. 6d. net.)

[7] *Preparing for Womanhood.* By Dr. E. B. Lowry. Chicago: Forbes and Company. 1918. (Cr. 8vo, pp. 175. 1 dol.)

THE LEAGUE OF RED CROSS SOCIETIES.

The head quarters of the League of Red Cross Societies, which was formed in Paris on May 5th, 1919, are at 9, Cour de St. Pierre, Geneva, and the work of organization is proceeding as rapidly as possible. The founder members of the League were the American, British, French, Italian, and Japanese national Red Cross societies. The following national societies have since become members: Argentina, Australia, Belgium, Brazil, Canada, China, Cuba, Denmark, Greece, Holland, India, New Zealand, Norway, Peru, Portugal, Rumania, Serbia, South Africa, Spain, Sweden, and Venezuela.

The third number of the *Bulletin* of the League gives a list of the officers and heads of departments who have already been appointed and have taken up their duties at head quarters. The Director-General is Lieut.-General Sir David Henderson; the Secretary-General is Professor William E. Rappard; the Treasurer-General is M. André Pallain; the General Medical Director is Colonel Richard P. Strong, with Dr. Leonard Findlay as Director of the Department of Child Welfare; the Counsellor in International Public Health is Professor Rocco Santoliquido. In the departments of Public Health and Hygiene bureaux will be organized to deal with the subjects of child welfare, tuberculosis, malaria, preventive medicine, venereal diseases, and nursing.

Several references have been made in our columns to the Inter-Allied Medical Commission, recently sent by the League at the request of the Polish Government to investigate the pandemic of typhus fever in Poland. One of the gravest consequences of the devastation of Poland during the war has been the great decline in the sanitary condition of the Polish population, with a concurrent rise in the general mortality. The Inter-Allied Commission will report on the sanitary conditions in Poland, and will make recommendations as to the advisability of establishing sanitary cordons to suppress the spread of typhus into adjacent territories. When the Commission has issued its report the League will be in a position to devise relief and preventive measures in the countries concerned, to propose to the Red Cross societies interested in the work an active sanitary campaign, and to urge the necessary measures that should be undertaken by the governments themselves. It is believed that the Polish pandemic of typhus originated in Russia and Ukrania.

The reports of the various sections of the medical conference held at Cannes in April last have now been published. They are printed in English, French, Italian, and Spanish, and may be had on application to the Department of Information and Publication of the League.

THE R.A.M.C. AS A CAREER.

INTRODUCTORY ADDRESS AT ST. MARY'S HOSPITAL, LONDON,

BY

SIR JOHN GOODWIN, K.C.B., C.M.G., D.S.O.,

DIRECTOR-GENERAL A.M.S.

IT was comparatively recently that I realized the near advent of the first of October and the fact that my address was still unwritten. I cast round for advice, I asked one friend as to the nature of the subject on which I should address you; he answered: "Oh, that's quite simple—reply to the criticisms which have been directed at the Army Medical Service during the war." My reply to this was that I had only been asked to give one address, and had not been requested to read a series of papers extending throughout the winter session.

I consulted others, but finally I thought that I would simply be guided by the experience of my daily life during the last eighteen months, and would talk to you on a subject relative to which I answer innumerable questions almost daily—namely, the advisability of adopting the Royal Army Medical Corps as a career, the present conditions and the future prospects of the service.

The R.A.M.C. in the War.

Now we have all heard a certain amount of criticism during the last few years, and, looking back over those years, I suppose that we can all see how things might have been somewhat better. We have made mistakes both of omission and commission, but it is always easy to be wise after the event, and I believe that even the most critical of us must own that the Royal Army Medical Corps has emerged from this war with a record of some good work accomplished and much knowledge and experience gained. I think that perhaps some of us do not quite realize the colossal nature of the task which faced the medical authorities at the outbreak of war, nor the enormous strain, anxiety, and labour which the various problems and difficulties entailed. This condition of affairs continued throughout the war; no sooner had one problem of immense difficulty and magnitude been dealt with than another situation arose which was almost appalling, but which had to be grappled with and overcome if disaster were to be avoided.

Let us consider briefly as to what had to be accomplished in the way of personnel, hospitals, and equipment.

At the commencement of the war we had in our regular Royal Army Medical Corps 1,026 officers and 3,168 non-commissioned officers and men. Every one of these had been detailed for his own specific work in the event of mobilization; every officer knew what his unit was, where it would mobilize, and what his own particular post in that unit would be. Officers had been selected, so far as possible, in accordance with their special abilities and training, and had been detailed accordingly for specific duties on mobilization; for example, officers who had worked at hygiene and had taken special degrees, such as the diploma of Public Health, were posted as sanitarians, others who had held surgical appointments were posted as surgeons to hospitals, etc.

This system was satisfactory so far as it went, but calculations were somewhat upset by the rapid and enormous growth of our armies and by the expansion of military operations into many different quarters of the globe.

Our original medical service of less than 4,500 officers and men rapidly expanded until it eventually numbered more than 13,000 officers and over 130,000 non-commissioned officers and men. Comparatively few of these newly commissioned officers had any previous experience of service in the field or knowledge of field service conditions, and our regular Royal Army Medical Corps officers and men were quickly scattered all over the various theatres of war.

I would say here that the two things which impressed me most during this war were the courage and resource shown by our newly commissioned officers, and the quickness with which they acquired knowledge of their duties. I have known a young temporarily commissioned officer, who had never before seen a shot fired in anger, carry on his duties under a heavy shell-fire with a cool courage which was beyond praise or description, and this not once but in dozens of cases; and similarly I have seen young men with no previous knowledge of field service conditions start to work in a field ambulance or casualty clearing station, and improve themselves in their work with a rapidity and to an extent which one might have thought impossible.

As regards hospitals, at the commencement of the war we had 7,000 beds in military hospitals in the United King om; these were expanded until at the time of the armistice we had in the United Kingdom alone more than 364,000 hospital beds and 333,000 patients in our charge. The number of hospital beds throughout the various theatres of war totalled at the time of the armistice 637,746, and we had under our care 577,906 patients.

As regards material and equipment, I shall not weary you with masses of figures, but you may realize the magnitude of the work in this direction when I mention that, quite exclusive of the initial medical equipment taken by units, we sent nearly 526,000 cases and bales of medical stores overseas.

To particularize a few items, I might mention 250,000 surgical instruments yearly dispatched, over 96 million bandages, nearly 1¼ million splints, and over 6,400 tons of lint and wool. Vaccines—typhoid, cholera, dysentery, etc.—we prepare at our Royal Army Medical College at Millbank, and of these we supplied during the war more than 20,600,000 doses; these vaccines, if purchased in the open market, would have cost us more than 1¼ millions sterling. Of the various serums we furnished 11¼ million doses. I think that these few figures may serve to visualize the enormous quantities of supplies of medical and surgical equipment which are required for a modern army in the field.

To revert for a few minutes to the question of our medical personnel, it would, of course, have been most desirable to fit every temporary commissioned officer into the particular niche for which he was best suited; but, in view of what I have just told you, you may realize the difficulties.

The Officers' Card Index.

There can be no doubt but that one of the most important requirements in the Royal Army Medical Corps—in war time equally with peace conditions—is that the best possible use should be made of every man; that there should, in fact, be no "square pegs in round holes." Theoretically, this desideratum should present no difficulties which could not be overcome, and with our present system I think that really satisfactory results are ensured. The aims of this system are briefly as follows:

1. To record fully the special qualifications of each individual officer, the work done, and the appointments held by him prior to his having entered the service.
2. To obtain, in a convenient and readily accessible form, an accurate record of the movements, stations, and work of each officer.

In order to attain these ends a card index system has been established; the qualifications, previous work, appointments in civil hospitals, etc., of each officer are entered on this card; the original is kept at the War Office, and the duplicate is forwarded to the head quarters of the command to which the officer is posted. All movements of the officer within that command, and the nature of the duties which he performs, are entered on the card at the command head quarters. On the officer leaving the command the duplicate card, recorded up to date, is forwarded to the War Office, and any additional information is there entered on the card in the main index; the duplicate card is then forwarded from the War Office to the new command to which the officer has now been posted. By this method the card constitutes a brief but complete record of each officer's services, and facilitates the employment of officers on the duties for which they are best suited, thus ensuring a more satisfactory form of service to the officers themselves, and increased efficiency to the army.

The system will provide a means of continuous and accurate supervision of every officer's work, progress, and career.

With regard to the various advantages and disadvantages of the service, I shall endeavour to lay matters before you fairly and without bias or prejudice.

Pay and Prospects.

First, as to monetary considerations—I apologize for putting this first, it really should come last, but, sordid though it may be, I suppose that when a career is being decided upon the question of £ s. d. is bound to be considered by most of us, and as a matter of practice I find that this is usually one of the first questions asked by a young medical man who contemplates entering the Royal Army Medical Corps.

The new Royal Warrant, issued very recently, lays down the pay and allowances for the Royal Army Medical Corps as follows:

On being commissioned as a lieutenant in the Royal Army Medical Corps an officer receives pay at the rate of £1 per diem, and he also receives various allowances, which bring his total emoluments up to an annual sum of £495, if unmarried, and £558 if married.

This pay steadily increases with service; a bachelor captain (to which rank an officer is promoted after three and a half years' service) receives £622 per annum, a major £815, a lieutenant-colonel £907, increasing to £1,189, a full colonel £1,395, and a major-general £2,001. Should an officer be married he receives slightly higher rates.

Now if we read between the lines of official documents we may often, in addition to the bald facts so tersely stated, gain hints which may be of value, and, bearing this in mind, I would point out that, as regards the increased allowance for married officers, there is a proviso that an officer is not entitled to draw the increased married rate until he has attained the age of 30, that being presumably the earliest year of discretion; the inference to be drawn is evidently that an officer should not commit matrimony until he is 30 years of age. Advice on these lines is no doubt excellent; it is frequently given, and I am afraid as frequently disregarded; in fact, I think that nearly all advice on the question of matrimony is prone, like the argument of doctor and saint, to go out "by the same door wherein it went." On this weighty question every man must judge for himself.

There is, however, another inference which you possibly might—but which I beg you will not—draw from these official rates of pay, and that is due to the fact that the rate for a married officer is only some £50 or £60 more than that for a bachelor. Please do not infer from this that the additional expenditure involved by matrimony only amounts to some £60 per annum. All the best authorities will tell you—and will be quite correct in so doing—that a married establishment involves a much greater expenditure than that of a bachelor; as regards one possible item alone we have it on the authority of *Punch* that a perambulator costs more than a motor car.

Now, as to pension. After fifteen years' service an officer can retire on £150 per annum, and thereafter he can retire on steadily increasing rates, depending on his rank and service, the *maximum* rates being £450 a year for a major, £600 for a lieutenant-colonel, £800 for a colonel, and £1,000 for a major-general.

From the above you will see that you are not likely to make a fortune in the Royal Army Medical Corps, but I would point out that it is not every man who makes a fortune in civil life, and I would also mention a few of the advantages of the service. First, the pay is such that a man can live comfortably, it steadily increases, and the provision of a pension ensures that a man is steadily, throughout his service, providing for the future.

Another advantage to which I would draw attention is the fact that if an officer's health should fail he is granted sick leave up to twelve months on full pay, provided there is a prospect of his being eventually fit for service. So much for the financial side of the Royal Army Medical Corps. Now let us touch on the far more important question of work in the service.

I was much impressed some years ago on reading the address which Mr. Rudyard Kipling gave at the McGill University of Montreal. He said:

> Only use one hand to procure wealth, keep your right for the "proper work of life," for if you employ both arms in the game of acquiring wealth you will be in danger of stooping, in danger also of losing your soul.

Now I have heard it said that there was not sufficient work in the Royal Army Medical Corps. I cannot say that I have ever at any time been so unfortunate as to suffer from an insufficiency of work—the direst evil that can befall any man—and I have more than a suspicion that when a man suffers from an insufficiency of work he is suffering from a neglect to make use of his opportunities.

A man must always be ready to make use of his opportunities; remember that "fortune only favours the man who is prepared." I say with confidence that if a man makes the most of his opportunities he will always find an abundance of intensely interesting work in the Royal Army Medical Corps.

Entry to the service is by competitive examination; the place which he takes in this examination decides an officer's position as a lieutenant in the Army List; after three and a half years' service, and after having passed an examination, he is promoted to be captain; between the seventh and twelfth years of his service an officer is seconded for a nine months' course of study in London; at the termination of this course he undergoes an examination, after passing which he is qualified, on the completion of his twelfth year of service, for promotion to the rank of major.

This nine months' course of study is carried out at the Royal Army Medical College at Millbank and in various of the London hospitals, and a considerable portion of the time is spent in the study of whichever "special subject the officer may select—for example, surgery, ophthalmology, State medicine, etc."

Specialist Appointments.

Should an officer show special aptitude for a particular subject, and qualify by examination in it, he is eligible for many years of his service (and I draw especial attention to this fact) until he attains the rank of full colonel, to hold specialist appointments in the subject. These appointments have in the past carried additional pay at the rate of 2s. 6d. per diem, but these rates have recently engaged a good deal of our attention as regards revision, and it has now been decided that when we have again settled down to the more or less normal conditions of peace, specialist appointments will be paid at the following rates:

Operative surgery	5s. per diem.
Medicine	5s. ,,
Ophthalmology	5s. ,,
Gynaecology	5s. ,,
Dermatology	5s. ,,
Otology, laryngology, and rhinology ...	2s. 6d. ,,
Radiology	2s. 6d. ,,
Anaesthetics	2s. 6d. ,,
Mental diseases...	2s. 6d. ,,

Several of the above rates of pay show a considerable increase over those hitherto in force—for example, pay for specialist appointments in operative surgery, ophthalmology, gynaecology, and dermatology has been increased from the former rate of 2s. 6d. per diem to 5s. per diem. Medicine, not hitherto recognized and paid as a special subject, now receives pay at 5s. per diem, while radiology and anaesthetics have been introduced as special subjects, appointments in which carry extra pay at 2s. 6d. per diem. There is also extra pay at rates varying from 2s. 6d. to 10s. per diem for the charge of a hospital or the medical or surgical division of a general hospital.

You may notice that in the above list of special subjects no mention is made of two very important branches of the profession, branches on which the welfare, indeed the very existence, of an army depends. I refer to hygiene and pathology. Now these two subjects have been dealt with, in official parlance, in another file, and I may say that that file was a very bulky one and entailed a very great deal of work, work which bore good fruit, for it was finally sanctioned this year that there should be two sub-directorates at the War Office, one in hygiene and one in pathology, each with a director at its head, assisted by a deputy director and a staff. Serving under the direction of these directors there will be assistant directors and deputy assistant directors at the various commands at home and abroad, in Egypt, Gibraltar, Malta, Ceylon, Jamaica, Bermuda, etc., and schools of hygiene will be formed in certain commands for the instruction of staff and regimental officers. By this means we hope to keep up to date with all the most recent developments as

regards tropical and other diseases and the methods for their treatment and, even more important, for their prevention.

Administrative Work.

There is one point on which I hear a very great deal, and on which I should like to make my own views clear, and that is the question of administrative and professional work. I had very nearly said "administrative *versus* professional work," for from what I sometimes hear I might be led to believe that a combination of the two was impossible—that they were, in fact, incompatibles.

Now, honestly, I cannot see this. Surely—how can it be seriously questioned or doubted by anyone?—the profession of medicine, to which we all belong, is the bedrock, the essential, of the Army Medical Service; if you sink the profession you are left as a ship without a rudder. But—here I come to my proviso—every man in the Royal Army Medical Corps should endeavour to make himself acquainted with the organization of his corps and of the army, and should hold in his hand at least the threads and principles of administration; it will not only be to his own advantage but also immensely to the advantage of the service if he does so. For think of what would happen on the outbreak of war if the officers of the corps were not acquainted with its organization, with the principles of administering hospitals and other units, and with the functions of field ambulances, casualty clearing stations, etc. The acquiring of such knowledge is most interesting; it is not by any means difficult, and it will in no way whatever divorce him from his profession. Surely every man is the better for being able so to organize and administer any unit that every branch of professional work in that unit may be so carried out as to attain a really high standard of efficiency.

May we consider for a moment the instance of an operating surgeon? We will suppose that this surgeon is as nearly as possible perfect in operative skill, courage, knowledge, and manual dexterity. Now, to my mind, such a surgeon will be lacking in capability and performance if he confines himself simply and solely to the actual operating; he will, in my opinion, be a more efficient and valuable man if he organizes the work in his operating theatre on a systematic basis, if he creates a team of workers, assistant, anaesthetist, theatre sister, etc., and so perfects the work of that team as to obtain the best work from each individual and the most perfect combined result from them all.

By having such organizing and administrative knowledge and power he will lose nothing and will gain much. I could give you numerous other examples—for example, the hygienist with an army in the field who, with his expert knowledge and skill, should be able so to organize the work of hygiene and sanitation in that army as to ensure that it is free from disease, and maintained in fit condition to function as an army.

The pathologist in a new, possibly an almost unknown, tropical country, who knows the prevailing diseases of the country, their causes and the methods for preventing and combating them, he surely, of all men, should best be able so to organize and systematize these methods as to obtain the best results.

My ideal commanding officer of a hospital would be a man who knows his hospital from top to bottom and all the patients in it, who knows his staff, trusts them and is trusted by them, who is really keen on every branch of his profession, and who is able to decide in his own mind without hesitation as to whether the work in every branch—surgery, medicine, pathology, etc.—is or is not being carried out in a manner which will bear the most critical examination.

I should like to see such a man looked to freely and without hesitation for opinion and advice, giving the best work himself, and obtaining—without asking for it—the best work from every one under him. You may say that this is an ideal to which it is difficult to attain; possibly so, but without an ideal you will attain nothing. The fact that a man is up to date and really efficient in his profession is all in his favour when he attains to the higher ranks and administers hospitals and supervises the work carried out in them.

I do not wish to labour the point, but I do desire to impress on you that a man must keep up his professional knowledge; he must never allow it to lapse into the background; he must keep himself up to date; and, consequently, he must be constantly working; but the whole work of the Royal Army Medical Corps is so interesting that one can hardly call it a labour—it becomes one's life.

There is one point regarding the corps on which I have not touched, and that is the fact that a certain portion of one's service is spent abroad; this fact may be regarded either as an advantage or a disadvantage according to the tastes of the individual. Personally, I have always loved seeing other countries, and regard the foreign service as a great attraction in the army.

Another point which I think appeals to many is the fact that one is working with, and for the good of, one's comrades in the army; the British soldier is the best man in the whole world for whom to work; he is not always easy to understand, and at first I found it a little difficult to realize the qualities which made certain officers beloved by their men. After I had been on active service, now some twenty odd years ago, I understood, and Kipling puts it pretty clearly when he says—

> All the years I have known So-and-so I have never known him to say whether he was cold or hot, wet or dry, sick or well, but I've never known him forget a man who was.

I may be biassed—though I do not admit it—but I look upon the Royal Army Medical Corps as offering a really good career and a happy life to a young medical man, and, were I starting life again as a newly-qualified man, I should unhesitatingly choose it for myself.

The Future of the Corps.

The improvements and advances which I have seen take place in the Medical Service of the Army during the last twenty-five years have been enormous, and I hope you will not regard me as a visionary or an idealist when I say that I look forward to steady and progressive improvements in the future. I hope and believe that the Royal Army Medical Corps in the years ahead of us will be deservedly looked to as an up-to-date scientific body of men, taking their part in the nation's work in the advancement of science and knowledge, and organized on such a basis that in a time of national emergency they may bear their share—and it is of necessity a very large share—of the nation's burden.

The last five years have taught us much. I do believe that the Royal Army Medical Corps stands now on a better basis with the rest of the army than it has ever done, and I think that we may now regard the Royal Army Medical Corps and the civil profession as being one. The great majority of the civil profession has been—and very many members still are—in the Royal Army Medical Corps, and I honestly believe that we officers in the regular Royal Army Medical Corps are more closely bound by ties of mutual trials, mutual work, and affection to the civil profession than has ever before been the case, and I also hope and believe that the civil profession is in far closer touch, and in much greater sympathy, with the Royal Army Medical Corps than it has hitherto been.

In conclusion, I venture to give you a few words of counsel: Keep your youth, your enthusiasm, your energy; if you permit your youthful enthusiasm to wane you will find difficulty in regaining it. If you would be successful and happy in your work you must give ungrudgingly of your best, for that way happiness lies; as Robert Louis Stevenson truly wrote:

> If a man love the labour of any trade, apart from any question of success or fame, the Gods have called him.

The finest men—those who most command our respect, admiration, and devotion—are those who give their all to work for the work's sake, and not for any personal reward; we all know such men, and we know how much the profession and the nation owes to them.

And, finally, I would beg you always to be loyal to your profession and to your brother professional men, and if any of you do eventually enter my service you will, I know, be loyal to it and to the army.

A DIAGNOSTIC hospital, to accommodate 500 cases daily, has been established in New York. The estimated cost is £100,000, and the funds have been supplied by the contributions of some thousand practitioners.

British Medical Journal.

SATURDAY, OCTOBER 11TH, 1919.

THE "PROCEEDINGS" OF THE APRIL MEETING.

THE volume containing the *Proceedings* of the Special Clinical and Scientific Meeting of the British Medical Association, held at the Imperial College of Science, South Kensington, in April last, has now been published.[1]

The object the Council of the British Medical Association had in view in holding the meeting was to afford an opportunity to discuss scientific and clinical matters, particularly the medical and surgical lessons learnt during the war, and the ways in which the lessons so learnt might be applied to future practice. The meeting was held early in the year in order to have the advantage of hearing the views of medical officers of the Dominion Forces and of the United States army before they left this country. The programme of the scientific work of the meeting was arranged by a committee over which Colonel J. G. Adami, F.R.S., C.A.M.C., presided. It determined that there should be only three sections, but that there should be many demonstrations. The plans worked well, and the meeting was in every respect successful. The invitation to attend, given to medical officers of all the services, met with a large response; the discussions were animated, and the demonstrations, of which there were a large number, filling up each of the three afternoons of the meeting, were much appreciated and largely attended. Colonel C. T. C. de Crespigny, Australian A.M.C., was secretary of the Section of Medicine; Mr. C. H. S. Frankau, lately temporary Colonel A.M.S., of the Section of Surgery; and Major A. M. W. Ellis, Canadian A.M.C., of the Section of Preventive Medicine and Pathology. An international character was given to the meeting by the attendance of many officers of the Medical Corps of the United States army, and by the active part they took in the proceedings.

The subjects selected for discussion in the Section of Medicine were: War neuroses, introduced by Sir F. W. Mott, M.D., F.R.S.; venereal disease, introduced by Colonel L. W. Harrison, M.B., D.S.O.; and prognosis in cardio-vascular affections by Dr. Thomas Lewis, F.R.S. In the Section of Surgery Colonel T. R. Elliott, F.R.S., and Colonel G. E. Gask, C.M.G., D.S.O., dealt with gunshot wounds of the chest; Professor W. M. Bayliss, F.R.S., and Dr. H. H. Dale, F.R.S., opened the discussion on wound shock, and Major R. C. Elmslie, M.S., and Major Rowley Bristow, F.R.C.S., combined to give a review of reconstructive surgery, which was followed by a debate. In the Section of Preventive Medicine and Pathology a discussion on the dysenteries was introduced by Colonel Leonard S. Dudgeon, C.M.G., A.M.S., and another on malaria, by Lieut.-Colonel S. P. James, I.M.S.(ret.), who is at present adviser on malaria to the Ministry of Health. A joint meeting of this section with that of Medicine was held under the chairmanship of Colonel Haven Emerson, Medical Corps, U.S.A., for the discussion of influenza, when the clinical aspects of the subject were brought forward by Major-General Sir Wilmot Herringham, K.C.M.G., the epidemiological by Captain M. Greenwood, R.A.M.C. (T.F.), and the etiological by Major F. B. Bowman, C.A.M.C. The *Proceedings* contain the full text of all the introductory papers and reports of the discussions which followed. Accounts are given also of the numerous demonstrations, which were a special feature of the meeting; many of them were planned to illustrate the subjects discussed in the sections, an arrangement which commanded general approval and caused large audiences to assemble. The volume includes the striking address, "The New Birth of Medicine," by the President of the Association, Sir Clifford Allbutt, K.C.B., F.R.S., Regius Professor of Physic in the University of Cambridge, which was circulated to members attending the meeting, and also a full report of the Popular Lecture in which Sir Cuthbert Wallace, K.C.M.G., consulting surgeon to the First Army in France, described the rise of the casualty clearing station and gave details of the work these units, so finely conceived and well administered, did during the various stages of the war. The lecture is illustrated by sketch plans of a casualty clearing station for seriously wounded men, and of another for walking wounded.

The later pages of the volume are occupied by a brief historical account of the Medical Services in the war; for the preparation of this, of the roll of honour, of summary statements of the strength of the services at various stages, and of the honours conferred on medical officers, the Association is indebted to Lieut.-Colonel D. G. Crawford, the historian of the Indian Medical Service. Lists of the medical head quarters staffs have been appended; in the preparation of the lists of the head quarter staffs, including General Head Quarters, lines of communication, and the staffs of the various armies in France, Italy, Salonica, Malta, Mesopotamia, East Africa, of the Army of the Rhine, and of the British troops in France and Flanders after the armistice; Sir Anthony Bowlby, K.C.B., has given valuable assistance; while for those of the Canadian Army Medical Corps, the Australian Imperial Force, the New Zealand Medical Corps, and the South African Medical Corps acknowledgements are due to the courtesy of the senior officers of these corps in this country. These additions will, it is believed, add to the permanent value of the volume as a reflex of medical opinion at the time, and as a memorial to those who gave their services, and too often their lives, in the great emergency.

[1] *Proceedings of the Special Clinical and Scientific Meeting.* London, April 8th–11th, 1919. London: The British Medical Association. (Demy 8vo, pp. xvi + 405.) The volume is published at the price of 3s., but copies will be supplied to members of the Association free on application to the Financial Secretary of the Association, 429, Strand, London, W.C.2.

BACILLARY DYSENTERY: CARRIERS AND FLIES.

THE investigation of bacillary dysentery in Macedonia was begun in 1915, but it was not until the autumn of 1916 that a definite scheme was adopted by Colonel L. S. Dudgeon, C.M.G., C.B.E., F.R.C.P., Major A. L. Urquhart, R.A.M.C., and Colonel W. R. Logan, R.A.M.C. Later several other bacteriologists in the command assisted; the advantages to be gained by several bacteriologists working in various parts of Macedonia and by the correlation of the work at a central laboratory, were apparent. All special strains of bacteria were fully investigated in the central laboratory, immune serums and antigens were prepared and sent to the various laboratories, and the

information obtained during the research was distributed among the other bacteriologists. The report[1] contains much valuable information, but Colonel Dudgeon is at pains to point out that many important questions were left unsolved or only partially answered, and to urge that opportunities shall be afforded to those bacteriologists who have studied the disease in its acute form to obtain the information still needed with regard to its causation, prevention, and treatment, for dysentery is one of the most serious diseases in subtropical and tropical countries, more especially to an army operating in a country in which it is both endemic and epidemic.

The earlier and larger part of the report is concerned with technical matters which will call for careful study by bacteriologists and physicians concerned with the diagnosis and treatment of dysentery. We may pass on to the section dealing with carriers. It is said that the occurrence of mucus in the stools should be regarded always with grave suspicion among patients with a previous history of dysentery, and the opinion of Dr. E. H. Lepper, O.B.E., bacteriologist to a dysentery hospital B.S.F., is confirmed, to the effect that it should be an essential part of the work of medical officers in dysentery wards to select samples of faeces which contain mucus for bacteriological examination and to notice if patients who are discharged are passing shreds of mucus. She considered that the percentage of convalescent dysentery patients carrying bacilli was about 6, but that three months after the onset this had been reduced to 1.5. In the Salonica command a dysentery section of a convalescent dépôt was established, conducted upon a definite scheme, one object being to test the power of the men to undergo physical labour gradually increased.

After discharge from hospital dysentery patients may suffer from attacks of diarrhoea when first put on army diet, because the intestinal tract has not completely recovered from the inflammatory processes. It was noted that patients with defective teeth were specially liable to such attacks. A series of cases which had suffered from repeated attacks and were to be regarded as chronic dysentery were carefully studied, and the conclusion was that the occurrence of mucus depended upon errors of diet, cold, fatigue, or an attack of malarial fever which might have lasted for a few hours only. Among the patients suffering from the effects of chronic malaria and dysentery it was common for a relapse of one infection to excite the recrudescence of the other. In certain cases it was ascertained that the infective agent was not constant in each attack. Further study of this question is necessary, and can only be satisfactorily carried out if sufficient fully trained bacteriologists and protozoologists are available. Meanwhile, the rule should be to return to hospital every patient who has mucus in his stools or is suffering from diarrhoea following an attack of dysentery.

Of serum treatment in acute bacillary dysentery it is said that this has sometimes become a ritual, antiserum being injected as soon as the patient announces that he is passing blood and mucus. While it is thought that this line of treatment is probably based on a false conception of the disease, it is recognized that the life of a patient suffering from acute dysentery may depend on whether or not treatment with antiserum is commenced at the earliest possible moment. It is admitted to be practically impossible to examine bacteriologically all cases of dysentery occurring among troops on active service, and that a negative result may be obtained if proper precautions are not adopted for a correct examination of the specimens, a subject dealt with at length in the report. The opinion is expressed that if every case of acute dysentery which needed serum-therapy were to receive a mixed antiserum at the beginning better results than those hitherto recorded might be obtained. Experience of bacillary dysentery during the Gallipoli campaign and in Macedonia during 1916–18 led to the conclusion that the vast majority of severe cases were due to the Shiga bacillus. It is urged therefore that every effort should be made to produce an efficient and standardized anti-Shiga serum which could be administered on the same lines as anti-diphtherial serum, thus avoiding excessive dosage with horse serum. The injections could be given subcutaneously.

The belief that the infection of dysentery and certain other intestinal diseases may be carried by the house-fly is very generally held, and has been made the basis of crusades. It has been founded mainly on general considerations, but has received support from some careful bacteriological investigations, especially those of Faichnie, Graham-Smith, and Bahr. The last section of the report before us contains some epidemiological and experimental observations of a precise kind, tending still further to incriminate the insect. The inquiry was conducted under three heads: the number of flies present at different seasons in a certain area was compared with the incidence of bacillary dysentery arising in that area; experiments were made to ascertain whether a fly deliberately infected with a bacillus of the dysentery group carried that bacillus; and, thirdly, to ascertain whether flies in their natural state were carrying dysentery bacilli. Two years' experience in the Salonica command showed that while bacillary dysentery occurred to some extent among the troops throughout the warmer months, there was a greater prevalence in spring and early summer, and in late autumn—periods when the fly pest was at its worst. The number of flies was estimated by the use of fly traps; the numbers trapped reached a maximum in May, and then declined, to rise again at the end of October, but their number then was much smaller than in the early summer. The number of flies was low in March, when the mean temperature of the air was below 50° and the minimum was 28°; the climate was then evidently too cold for the incubation of the eggs and larvae of the fly. In July, August, and early September the mean temperature was usually between 75° and 85°, with a maximum of 102° or 104°, but the relative humidity curve was, with one exception, below 50. This weather evidently rendered the breeding grounds too dry for the successful hatching of pupae, and probably killed many adults. Changes in local conditions in the areas under observation introduced certain fallacies, but, on the whole, it was obvious that periods during which bacillary dysentery was most prevalent corresponded to the periods when the flies were most numerous. In the early summer the rise in dysentery appears to have followed the rise in the number of flies at an interval of about three weeks. In the autumn the rise in the number of cases of dysentery seems to have preceded the rise in the number of flies.

In the experiments to ascertain whether the fly is capable of carrying dysentery bacilli the insects were fed in improvised cages on materials known to contain Flexner or Shiga bacilli. Three methods were used to recover the bacilli after feeding; in the one a fly was allowed to roam about on a plate of

[1] Medical Research Committee. Special Reports Series, No. 40. H.M. Stationery Office. (Price 3s.)

MacConkey's medium for some fifteen minutes, then destroyed, and the plate incubated. This reproduced the natural process, since the fly might infect the medium by wiping the feet, regurgitation, or defaecation, as in food contamination. In the second the fly's faecal deposit was collected and emulsified on sterile saline solution; it was then plated. In the third method the insect was killed, the legs were detached and dropped into broth, which was incubated for from six to twelve hours and then plated. A variable amount of growth was obtained by all methods, often, in the first and third methods, too great for convenient examination. The second is therefore recommended as the most suitable method for the isolation of dysentery bacilli at and beyond twenty-four hours from the time of infection; after the lapse of this time the prospect of recovering the infecting organism from the fly diminishes very markedly. The total number of flies examined was 382, and positive results were obtained in 79.

The series of experiments to ascertain whether flies in their natural state were carrying dysentery bacilli were made on insects caught in various parts of two hospitals, in neither of which were there wards allotted to cases of dysentery. The results were sufficient to show that flies living under natural conditions may carry dysentery bacilli, but judging from these experiments alone this would appear to occur infrequently. During the period April to June, 1918, when the flies were in an active state, in great numbers, and the incidence of dysentery was high, 1,240 were collected in equal numbers from the two hospitals. Typical dysentery bacilli were not recovered, but Flexner's bacillus (inagglutinable) was recovered from two, and a para-Shiga bacillus from one. In October, 1918, during the increased incidence of dysentery at that time 330 flies caught in one of the hospitals were examined. The flies were numerous and active. Among 160 flies examined by the walking method typical Shiga's bacillus was recovered in one instance (a fly caught in a hospital kitchen), and a Flexner-like bacillus (inagglutinable) in four. The faeces from 170 other flies were examined; typical dysentery bacilli were not found, but a Flexner-like bacillus (inagglutinable) was recovered from two. Though the number of positive results was small, it must be remembered that 1,670 flies—the total examined by this method—would form a very small proportion of the total swarms.

TEMPORARY COMMISSIONS IN THE R.A.M.C.

WE understand that the response to the recent appeal of the War Office to medical practitioners, including those who have been demobilized, to undertake duty with the army has not been as satisfactory as could be wished, nor, indeed, as large as the needs of the country demand. It will be remembered that under the new arrangements published last month the period of engagement will be for six months, the contract not being terminable by either party prior to the expiration of that period, and that applicants who have served before will be commissioned in their previous rank. The pay of lieutenants will be £600 per annum, and officers of this rank, on completion of one year's satisfactory service, will be commissioned as captains. The pay of captains is £650 per annum. In addition each officer will be entitled to pay at the rate of £50 a year when serving elsewhere than in Europe, to rations, and to specialist or charge pay when holding a position for which the issue of such is authorized. Officers holding higher acting or substantive rank than that of captain will, if they desire, be granted the pay and allowances of the higher rank. These terms are a considerable improvement on those previously offered, and have, we understand, proved attractive to over 500 officers now serving; but the response from medical men who have not previously served and from demobilized officers has been disappointing. The total applicants under the new contract, we believe, scarcely exceed 600. We are satisfied that the needs of the Army Medical Service are great. The country still has considerable forces afoot—in Mesopotamia, in India, in Egypt, and on the Rhine. Leave, save in very exceptional circumstances, is not being granted to regular officers R.A.M.C. Those serving in India are being retained, and sick leave has been given only to two or three in very urgent circumstances. The case of temporary and Territorial officers who were stopped in India on their way home from Mesopotamia is particularly hard, and the War Office is specially anxious to bring them home for demobilization, but the demands of India for medical officers seem to increase rather than diminish. The same is true of Egypt. Leave to I.M.S. officers has practically stopped, and the Indian Medical Service has recruited over 800 temporary officers; yet, in spite of this, demands for further R.A.M.C. officers are being received from India. Some of our correspondents affirm that R.A.M.C. officers in India are not being fully employed, and that redistribution, now that the Frontier war is over, might render it possible to liberate temporary officers who have served longest. We are sure that this matter is receiving the anxious consideration of Sir Charles Burtchaell and his staff, and that everything possible in this direction will now be done; as we have shown, it is most urgent that the demands from India for additional officers should be moderated. The circumstances of the Army Medical Service at the present time are so difficult that it may well make a special appeal to the younger qualified men who have not yet served; we are aware that their numbers are much smaller than in normal times. The number of names on the *Medical Register* in 1918 was little larger than in 1917; the number of new names of practitioners in the British Isles registered in 1918 was 913, as compared with 1,168 in 1913 and 1,433 in 1914. In considering the matter it is only just to remember that many of those who patriotically took advantage of the special facilities to obtain early qualification during the war—a movement which brought up the number of new names registered in 1915 to 1,526—may now properly desire to study for an additional diploma, a university degree, or the fellowship of a college; but there must be a considerable number of men not so engaged who, it might be thought, could well give six months' service in the army. It is hoped—and the hope is reasonable—that the military situation will be much easier six months hence. The number of students attending the medical schools, especially those of the first and second year, is unusually large, but that does not affect the immediate problem.

"MEDICAL SCIENCE, ABSTRACTS AND REVIEWS."

DURING the war the Medical Research Committee published a *Medical Supplement* to the Review of the Foreign Press issued by the General Staff of the War Office. This review of foreign medical war literature, which proved of much value and interest, especially to medical officers serving abroad, was discontinued last April. It has now been revived in a different form as a monthly periodical under the title of *Medical Science, Abstracts and Reviews*,[1] and the first number, dated October, 1919, has just been published for the Medical Research Committee by the Oxford University Press. It resembles in shape and size the monthly lay reviews. The first ninety pages are devoted to articles each of which is a review embodying

[1] London, Edinburgh, Glasgow, New York, Toronto, Melbourne, Cape Town, Bombay: Humphrey Milford, Oxford University Press. Annual subscription 21s.; single copies 2s.

recent observations on some medical or surgical subject; there are, for example, such articles on caecostomy and appendicostomy, on influenza, and on lethargic encephalitis. The value of such reviews is considerable, and is enhanced when the writer treats a subject with which he is familiar, so that he is competent to recognize chauvinistic tendencies, from which neither scientific nor medical literature is altogether free. The remaining forty pages contain abstracts, mostly short, of articles in proceedings and periodicals, arranged under various heads. These abstracts are for the most part founded on papers of a technical character, published chiefly, but not exclusively, in foreign journals; the section on pathology and bacteriology, as is proper, is particularly full, and will, we hope, be maintained and developed. There is, perhaps inevitably, some overlapping with the matter appearing in the general medical journals; but on the whole the new periodical may be considered the complement of the Epitome of the British Medical Journal.

THE BEGINNINGS OF MEDICAL SOCIETIES.

Dr. Herbert Chambers, who was inducted as president of the West London Medico-Chirurgical Society on October 3rd, devoted his address to a historical sketch of the medical societies of London. All scientific societies, he said, were the remote offspring of those early schools and academies of science which arose from Hellenic culture, but it needed many centuries of patient work to bring into existence associated observation, which was a very late product of advancement in knowledge. In this country Francis Bacon was the first to suggest the formation of a society for elucidating intellectual problems, and the idea bore fruit at last in the establishment of the Royal Society in 1660. Otherwise, with the exception of the Royal College of Physicians of London, founded in 1518, no recognized scientific society existed in this country previous to the Restoration. Edinburgh was the home of the first medical society proper: such a society was founded in that city in 1731. Medical societies now began to appear in London, tentatively at first, but gaining vitality with time. One was founded in 1752, and held its meetings fortnightly at the Mitre Tavern in Fleet Street; it ceased to exist in 1784. Another select coterie of physicians was founded in 1764, but no record of it was discoverable after 1783. The society founded at Guy's in 1771 might be said to have flourished on its fines; as much as £5 was exacted from its members at a meeting; Jenner delivered before this society one of his earliest dissertations on vaccination. The present Medical Society of London was instituted in 1773, largely by Fothergill and Lettsom. Thirty-two years later a number of its members separated and founded the Medical and Chirurgical Society, which announced itself as a society with liberal and independent principles, conducted with propriety and dignity worthy of the medical profession. This body ultimately developed into the Royal Society of Medicine. The lecturer concluded by tracing the history of the West London Medico-Chirurgical Society since its foundation, due mainly to Charles Keetley, in 1882.

A TEST OF ARMY SANITATION.

Field-Marshal Lord Allenby, in acknowledging the freedom of the City of London at the Guildhall on October 7th, paid a high compliment to the medical and sanitary services of the army in Palestine. "I was told," he said, "by all the textbooks and authorities that no troops could be kept in the Jordan Valley during the summer, 1,300 feet below sea level, in a heat that could hardly be named, and under frightful conditions of malaria. But we attacked the mosquitos, drained the swamps, canalized the streams, burned the bush, and oiled the pools, and we were able to stay there. After we crossed the Turkish lines we tumbled into it, and got sickness very bad. In six weeks from September 19th, when I attacked, I lost three times as many men by disease—malaria and influenza—as by wounds in battle. That was not in our own ground, but when we had reached the Turkish area, where they had not taken precautions for attacking malaria."

INCOME TAX OF CIVILIAN DOCTORS ON WAR WORK.

A note on this subject appeared in our issue of September 20th, 1919. We now learn that, as a result of a decision given in the High Court in connexion with the liability to income tax of persons doing army work but not as commissioned officers, the Board of Inland Revenue has recently decided to accept claims by temporary civilian doctors (including women doctors) employed at war hospitals to the "service" rates of assessment, and to the "old" abatement of £160 where the total income of the individual does not exceed £300 per annum. Such claims are not barred by the fact that no notice of objection was lodged when the assessment was made, although they would be affected by the ordinary statutory time limit of three years. Consequently any individual who comes within the category referred to can claim repayment of any excess of tax paid as from April 5th, 1916, onwards, provided that the claim, or an intimation that the claim will be made, is lodged with the authorities by April 5th, 1920. We suggest to any practitioners affected that they communicate with the local surveyor of taxes requesting to be supplied with the appropriate form of claim.

THE LONDON MEDICAL EXHIBITION.

The ninth London Medical Exhibition, but the first since before the war, organized by the *British and Colonial Pharmacist*, has been held at Westminster Central Hall during five days of the present week. Sixty firms contributed to a very interesting display, though many of them, owing to the railway strike, had to wrestle with unusual difficulties in bringing together their products. The articles shown included chiefly surgical instruments, orthopaedic appliances, fine chemicals and pharmaceutical preparations, patent foods and table waters, hygienic wearing apparel, laboratory equipment, and medical books. In fact the exhibition, particularly on its chemical side, was a repetition on a somewhat smaller scale of the exhibition held at South Kensington during the Clinical and Scientific Meeting of the British Medical Association last April. Doubtless owing to limitations of space, electrical and x-ray apparatus were not illustrated, save by an exhibit of some radiant-heat apparatus; but this was interesting because it included electrically-heated waistcoats, gloves, and boot-soles for airmen. During the last six months the range of synthetic products of British manufacture has evidently gone on extending; one firm showed forty or more such products which in pre-war times had all been wholly or in great part imported; and not only has there been extension of range of products, but also improvement in ampoules and administrative devices. Nothing, however, was more significant of the heights of achievement to which the British chemist has risen than a beautiful sample of sodium salicylate flake of unapproachable purity.

The Harveian Oration, before the Royal College of Physicians of London, will be delivered by Dr. Raymond Crawfurd at the College on Saturday, October 18th, at 4 p.m.

The Medical Society of London will open its session on Monday next, when the annual meeting will be held at 8p.m. At 8.30 the president, Mr. V. Warren Low, C.B., F.R.C.S., will deliver his presidential address. This will be followed by a paper by Dr. F. de Havilland Hall on angina pectoris with low blood pressure. At the next meeting of the society, which will take place on October 27th at 8.30 p.m., Colonel A. L. A. Webb, C.B., C.M.G., will open a discussion on the reclassification and treatment of pensioners.

Scotland.

Contested Election for Direct Representative, General Medical Council.

The Medical Act 1886 provided that one direct representative on the General Medical Council should be elected by the registered medical practitioners resident in Scotland, that he should hold office for a term of five years and be eligible for re-election. The present representative is Dr. Norman Walker, whose term of office expired three years ago, but under the provisions of the Parliament and Local Elections Act of 1916, 1917, and 1918, the tenure of the direct representatives was extended until the end of the present year. An election will shortly take place, and Dr. Norman Walker is offering himself for re-election. He is opposed by Dr. Michael Dewar of Edinburgh, and Dr. Ebenezer Duncan of Glasgow. We have received the following reports of meetings of the profession held by Dr. Norman Walker and Dr. Dewar:

Dr. Norman Walker.

In opening his campaign as a candidate for the above, Dr. Norman Walker, the sitting member, addressed a small but representative and enthusiastic meeting of Fife doctors in Kirkcaldy, on October 3rd. He showed, from previous election addresses, that he had carried out a consistent policy for the period during which he had been the representative.

In the medical curriculum he advocated the recognition of the excellent instruction in chemistry and physics at secondary schools; greater attention to the preventive side of medicine all through the curriculum; and the provision of a fourth term annually with a greater supply of lectures if necessary.

He was in favour of the one-portal system, standardized by inspectors in increased numbers, and of the utilization of more of the county hospitals in supplementing professional training, especially after graduation. He agreed with the report of the Departmental Committee appointed at the instance of the General Medical Council on the present position of dentistry.

With regard to the future of medicine, he thought it was "not dark, but misty, and that under such circumstances experience was specially valuable."

These views were cordially reciprocated by the meeting, and a unanimous vote of confidence was passed, on the motion of Dr. C. E. Douglas, who pointed out that Dr. Walker had the confidence and trust of the General Medical Council to such an extent that he had been elected Chairman of the Business Committee, and member and Acting Chairman of the Examination Committee. The profession in Scotland could not afford to lose the services of such a representative at the present time.

Dr. Michael Dewar.

Dr. Dewar opened his election campaign on October 3rd by addressing a meeting of the medical profession in Edinburgh in support of his candidature for the vacancy occurring this year in the direct representation of Scotland on the General Medical Council. He said that for the last thirteen years Scotland had not been represented by a general practitioner, and thus the Act of 1886 had been a dead letter in Scotland for that period, so far as the general practitioners, who formed the great bulk of the profession, were concerned. The whole of the seats for Scotland (eight in number) were held by prominent members of the colleges and universities, who, without exception, were consultants, specialists, or teachers. He considered that it was not too much to expect that the one seat available should be held by a general practitioner. This seat should not be looked upon as the prerogative of any single man simply because a few were of opinion that it is not a pleasant action to try and oust the sitting member. This procedure was adopted by the present representative in 1906. Dr. Dewar expressed himself in favour of:

1. A fairly high standard of proficiency in general education for entrance to the medical curriculum.
2. The compulsory inclusion of Latin in all the entrance examinations, not that candidates should be Latin scholars, but that they should possess a sufficient grounding in the elements of that language to enable them to benefit to the full in their future medical studies.
3. As to the recent resolution of the Council in recognizing certain examinations as qualifying for entrance to student registration—notably, the first schools certificate with two credit passes, the second schools certificate, the intermediate leaving certificate, and the entrance examination to the arts and science courses—he said that it was not right that the entrance examinations to the medical courses should be on a lower level than those required for the arts and science courses. Mathematics, with the cognate subjects of algebra and arithmetic as a mental exercise, were essential for medical students. There had been a decided tendency towards a lowering of the standard in past years, as compared with that required by the universities thirty years ago. This was not good for the future well-being of the profession. These entrance examinations should be stiffened, if future doctors were to continue to be looked upon by the public as men of education, some culture, and possessing the necessary qualifications to enable them to exercise good judgement in the diagnosis and treatment of the many difficult problems of disease.
4. The maintenance and even extension of the supervision by the Council of the professional examinations, and especially the later examinations. As shown by the reports of the inspectors, there was sometimes displayed in answering the simplest questions a woful lack of knowledge, which must be due either to a defective application by students to their medical studies, or an inability, owing to a deficient knowledge in general education, to think correctly and express themselves clearly.
5. The one-portal system for entrance to the medical course and to registration as medical practitioners. There should be no side door or back door. All should possess a sufficient standard of knowledge in medicine, surgery, and obstetrics to enable them to enter on their medical life on a proper basis.
6. The total prohibition of unregistered dental practice, due regard being given to those men who had been in practice for a number of years, and who may have incurred domestic obligations.

Most of the penal cases affected general practitioners, and he held that as many men as the Act of 1886 allowed, who were engaged in this kind of practice and knew the temptations to which such practitioners were subjected by an immoral section of the public, should be included in the Council and assist in acting as their judges.

In answer to a question as to the reconstruction of the medical curriculum, Dr. Dewar expressed himself in favour of the extension of the age for entrance to the medical course to 18, thus allowing boys in the senior schools to study and pass examinations in the basic sciences included in the First Professional Examination. By this means the five years' curriculum would be relieved of this burden of preliminary scientific education, and leave the whole time to be devoted to a study of the various subjects required for starting life as a medical practitioner.

A vote of confidence in the candidate was unanimously passed.

England and Wales.

State-aided Housing Schemes for London.

It was reported to the meeting of the London County Council on October 7th that the Ministry of Health had approved the Council's scheme whereby ten thousand new houses should be completed within the next two years, but that Dr. Addison was not yet satisfied that the proposed provision of a further 19,000 houses within the three following years, and the clearance of the worst of the insanitary areas with an estimated population of 40,000 would meet adequately the needs of London. The reply of the Council was to the effect that it did not suggest that all the eventual needs of London would be met by the scheme, and the Council had indeed provided that before the end of the five-year period the needs of the county should be reconsidered. At the same meeting the Council discussed what relaxations of by-laws might be necessary. A recommendation was adopted declaring it undesirable to relax the by-laws relating to width of streets, formation of blind alleys, and height of habitable rooms, though no objection was offered to certain other relaxations, such as relate to hollow, party, and parapet walls, and the thickness of walls. The statutory width set up for streets is 40 ft. for carriage streets and 20 ft. for foot streets, and the sub-committee on this question gave its opinion that only by adhering to this standard could provision be made for the growth of the population and the consequent increase in traffic. The formation of culs-de-sac, which is suggested in the manual on the preparation of housing schemes issued by the Ministry of Health, was thought likely to lead eventually to the creation of slums; and with regard to the adoption of a height of 8 ft. for rooms, which is also suggested in the manual, the Council's medical officer of health stated that from a large personal experience he

thought that the London Building Act, which required habitable rooms, with some exceptions, to be 8 ft. 6 in. in height, should continue to operate. If windows were kept open and adequate ventilation provided a reduction in height might perhaps be permitted, but it was impossible to ensure these measures.

Post-graduate Courses in Manchester.

A series of post-graduate lectures and demonstrations on medical, surgical, and special subjects is being given at the Manchester Royal Infirmary. The first lecture was given by Mr. W. Thorburn, C.B., on October 7th, the subject being prostatic enlargement. The next lecture will be given by Dr. E. S. Reynolds, on the diagnosis of affections of the spinal cord, on Tuesday next. The lectures will be continued each Tuesday until June 29th, 1920, with the exception of December 23rd and 30th, January 6th, April 1st, and May 15th. Tea is served at 4 p.m. and the lecture begins each day at 4.30 p.m. The lectures are open to medical practitioners without fee.

Correspondence.

MEMORIAL TO HUGH OWEN THOMAS.

Sir,—I should like to suggest that the best memorial to this really great man take the form of a collected complete edition of his writings. So far I have failed to find any library that can boast of possessing a complete set. He was not careful about his own reputation as a writer, and appears to have thrown off paper after paper without any care as to their future. Still, I have no doubt if the task were taken in hand by the Memorial Committee it should be possible to obtain (with the help of libraries and members of the profession) a complete list of his printed work, and if the general editorship were entrusted to his distinguished relative, Sir Robert Jones, the profession would have at its disposal probably the most remarkable conspectus of work on any one subject that has ever been produced. I do not think it would call for a large subscription. I believe all that is really wanted is a guarantee fund, for if properly done the work should pay for itself. If the British Medical Journal will start a guarantee fund I should be glad to stand for £50.—I am, etc.,

London, W., Sept. 24th. J. Y. W. MacAlister.

*** The following list of the works of Hugh Owen Thomas in the Library of the British Medical Association may serve as the basis of a complete bibliography:

The Past and Present Treatment of Intestinal Obstructions Reviewed, with an Improved Treatment Indicated (title on cover, "Diet and Opium in Intestinal Obstructions"). 1877.
A Review of the Past and Present Treatment of Disease of the Hip, Knee, and Ankle Joints, with their Deformities. 1878.
The Treatment of Fractures of the Lower Jaw. 1881.
*Nerve Inhibition and its Relation to the Practice of Medicine. 1883.
Intestinal Obstruction; with an Appendix on the Action of Remedies. 1883.
*Principles of the Treatment of Diseased Joints. 1883.
*Fractures of the Neck of the Femur. 1884.
*The Principles of the Treatment of Fractures and Dislocations. 1886.
*Fractures, Dislocations, Diseases, and Deformities of the Bones of the Trunk and Upper Extremities. 1887.
*A New Lithotomy Operation. 1890.
*The Colligian of 1665 and the Collegians of 1885. Second edition. 1888.
An Argument with the Censor of St. Luke's Hospital, New York. 1889.
*Fractures, Dislocations, Deformities, and Diseases of the Lower Extremities. 1890.

The volumes marked * form Parts of a series with the general title *Contributions to Surgery and Medicine*, but it appears impossible to reconcile the dates of publication with the author's numbering of the several Parts.

The following works mentioned in the bibliography appended to the pamphlet issued by the Hugh Owen Thomas Memorial Committee of the Liverpool Medical Institution are not in the Library of the British Medical Association:

The Principles of the Treatment of Joint Diseases. 1878.
Inflammation, Ankylosis-reduction of Joint Deformity, Bone-setting.
Spinal Deformities.

These works may possibly have been superseded by or embodied in some of his later volumes. We shall be obliged for information on this point and as to any books by H. O. Thomas not here enumerated.

ROYAL NAVAL MEDICAL SERVICE.

Sir,—Since the new scheme for pay and promotion of naval officers was promulgated we have been expecting to see from abler pens than ours some candid criticisms on those changes which affect the medical branch. However, little has been written, though much has been said.

We may say at once that the new scale of pay is generally considered sufficient *if the higher ranks are opened up*. Then, Sir, you may well ask, "What is wrong with the Naval Medical Service?" The reply is, "Injustice"; and if you will allow us to put our grievances before you, incidentally they will be known to the medical profession generally.

I. A lack of promotion to the rank of surgeon captain, which does not obtain in service-trained branches of the navy. With the exception of the naval instructors (another non-service-trained branch), all commanders come up for consideration for promotion long before their age for retirement, and those deserving of promotion are advanced to captain.

The result of this is that, for instance, all paymasters with few and understood exceptions, arrive at captain's rank and can retire on £900 a year, while the medical officer can only hope to reach a pension of £600, unless he be an exceptionally fortunate individual.

II. It was generally expected that pensions under the new scheme would be advanced 50 per cent. This has practically been done for all branches except the medical, even to nearly 100 per cent. in some cases, whereas surgeon commanders' maximum pension (so far the most important one) has only advanced 10 per cent. above the rate fixed nearly forty years ago.

III. Officers (other than of the medical and instructor branches) who continued to serve during the war after reaching the age of 50 were generally given acting captain's rank, and paid full pay and a quarter in that rank from that time. On the other hand, in our branch acting rank was almost unknown even where it should have been bestowed. Towards the end of the war acting rank certainly was given to certain surgeon lieutenants who were in medical charge of cruisers, but this is believed only to have been done out of very shame because paymaster lieutenants had been given similar acting rank under similar circumstances years before.

As now the retired pay of commanders in all branches is the same, why should not the doctors have the same advantages as service-trained branches? Do the authorities forget that we bring an expensive and difficult profession with us?

IV. The gratuities which once tempted medical men to join the navy remain the same as fixed about 1882! They are scarcely likely to tempt candidates now. At the same time service-trained officers who have cost the country enormous sums for their education are encouraged to leave the service at a younger age than medical officers could, on approximately the same gratuity!

V. The present compound titles are "impossible." They certainly do not lessen the unpopularity of the service. The changes in uniform made lately were generally welcomed, but the new titles, No! We have never heard a medical officer speak in favour of them.

VI. The adjustment of seniority for surgeon commanders under the new scheme is a most feeble arrangement, some officers gaining two years only and others anything up to four years' seniority.

VII. Surgeon rear admirals have absolutely none of the many advantages of flag officers in the executive branch. They have neither table money nor entertainment allowance, servants' allowance nor charge pay. Neither are they given a barge.

The ranks of the medical officers are most difficult to fill, especially with desirable candidates. There is no difficulty in filling the vacancies in the non-medical branches. In spite of this fact, the pay, allowances, and pensions of the medical branch show a much lower percentage of increase under the new scheme than that granted to non-medical branches.

May we suggest what should be done?

1. All medical officers to be considered for promotion to surgeon-captain some time before compulsory retirement.

2. Pensions of surgeon commanders to be increased to a maximum of £900 if they have served after 50 and during the war.

3. Surgeon commanders to be granted the same advantages as engineer commanders as regards service after the age of 50 during the war. Acting rank to be bestowed as freely to us as it is to that branch.

4. Gratuities to those who wish to withdraw to be increased by at least 60 per cent.

5. To abolish the compound titles and have purely executive ones, or to revert to the old time-honoured ones.

6. Under the new scheme all officers over twelve years' service and under the rank of surgeon captain to be given four years' seniority, so that all these officers should be treated alike.

7. Surgeon rear admirals should be given either table money or charge pay.

In conclusion, we could wish for more appreciation of our work as medical men. We are not simple automatons trained only to give a dose of medicine when required.

Since the above lines were penned it really seems as though the Admiralty were trying to exasperate their medical officers. An order has just been issued to the effect that medical officers serving in establishment appointments are not to draw the same amount as compensation in lieu of provisions, light and fuel, and servants as do officers in other branches. For instance, a paymaster commander in occupation of an official residence in a naval hospital would draw £140 per annum as allowances in lieu of provision, fuel, light, and servant, while under the same conditions a surgeon commander, perhaps living in the same terrace, would draw £53. This is almost incredible, but it is so; and this in spite of the fact that medical officers' charge pay has all been stopped under the new scheme, whereas command money or charge pay remains for other branches.—We are, etc.,

Sept. 30th. FOUR SENIOR MEDICAL OFFICERS, R.N.

"THE CULT OF INDIVIDUALISM."

SIR,—Whether or no one agrees with all Dr. Fothergill's contentions as expressed in his letter to the JOURNAL of September 13th, he has done a service to the Association in throwing the limelight upon the canker of disunion which is sapping our energies and bringing upon us the contempt of all thinking men.

It is too much to expect every man in an individualistic profession such as ours to see eye to eye, but surely where every one starts from the common ground of desire to help to raise our profession, it should be possible to work harmoniously together in order to reach the haven where we would be.

I submit that the first thing to be done is to sink our personal feelings and not to damn an idea just because it emanates from somebody whom we dislike. It may be very tempting to rush into print and score a debating point off a rival, but how does that help along the common cause which all have at heart, however much they may differ as to the methods by which the result may be attained? Civil war while the enemy hammers at the gate is a policy of self-destruction. Personally I find in these new organizations no principle which the Association could not carry out if only it were backed up by a united profession—a consummation devoutly to be wished.

No disease can be treated rationally without a previous sound diagnosis, so let us devote our energies to finding out exactly why nearly half the profession does not belong to the Association. The fact of there being other organizations is in itself a proof that many are dissatisfied with the Association. I shall be the last to deny the existence of sins in that body, both of omission and commission, but I am equally certain that much discontent is due to ignorance and, above all, to apathy. One is constantly refuting the same silly canards and inaccuracies about the Association, and the importance of keeping members *au fait* with what is being done for them cannot be exaggerated, the issue of the monthly reports to secretaries being in this respect a welcome and valuable innovation.

Moreover, only those with inside knowledge can realize the difficulty of satisfying over 20,000 members of an individualistic profession with its bewildering variations in conditions of practice.

Further, can we, the rank and file, be held blameless? For the Representative Meeting in July last more than forty Divisions failed to elect a representative—in other words, one in every five of the Division secretaries allowed their constituents to be disfranchised. How can we expect the Association to exert its proper influence in the face of such apathy? If members are dissatisfied with the Association, and yet are too apathetic to see that the right men are elected as secretaries, and too lazy to see that the Council is composed of men who represent correctly their views, then they cannot reasonably grumble if the actions of the Association are not in accordance with their ideas.

So I venture to appeal to members to take a keener interest in their Divisions, and to secretaries to make greater efforts to bring men together by arranging an attractive programme of meetings, tackling non-members, and so forth, for let the Association and the profession once become synonymous terms, and half our difficulties will be automatically solved.

To the question, "What has the Association done for us?" there are many answers. To the query, "What could not the Association do for us if it had behind it a united profession?" there is but one answer—"Nothing."—I am, etc.,

JOHN F. WALKER,
Honorary Secretary South Essex Division, and L.M.W.C.; late Visitor to Ministry of National Service and C.M.W.C.

Southend, Sept. 24th.

SIR,—I am afraid that this discussion is losing sight of the original purpose. Dr. Peter Macdonald has omitted the preliminary sentence in a paragraph quoted by him from a communication in the JOURNAL for September 27th, and has thus turned aside a challenge to medical trade union theorists. It will not do. The challenge was quite clearly stated. The weak link in the medical trade union principle is that some of the members of our profession would at the last push flip their fingers at any attempt (by a medical trade union) to dictate to them how and in what manner they should conduct their professional activities. Now will Dr. Macdonald—to use his case—explain, step by step, how, by using trade union methods or principles, he would compel certain practitioners in a town, who are considered by the British Medical Association to be recalcitrants, to resign their appointments if the Medico-Political Union determined that this should be done? He can consider that these practitioners were members or not of that union, just as he prefers. If he is unable to satisfy any unbiassed medical jury on this point, he will readily see why many practitioners consider themselves justified in declining to assist him in asking individual members to join the Medico-Political Union.

But the question of special interest just now is what will be the reply of the honorary officers of the British Federation of Medical and Allied Societies to the questions asked them on p. 426 of your JOURNAL for September 27th last. Rumour states—may it be a lying jade—that they have no reply, never had one, and never expect to have one, but have determined, by lying low and ignoring the challenge, to count on rehabilitating their offspring in the affections of those they woo when the clouds have rolled by and the challenge is forgotten.

It may be useful, therefore, to repeat the questions:

1. Which of its objects do they consider that the British Medical Association cannot carry into effect, and why?

2. What is the power which they consider to be necessary in order to attain these objects; how do they propose to obtain that power; and when obtained, how do they propose to use it?

3. Has not the Association that power at present? If not, can it not obtain that power; and if not, why not?

One of the strongest advocates of this Federation considers that "it can provide at this juncture a round table where some common views as to many vexed questions would be arrived at." Cannot the British Medical Association do this? Is it necessary to bring into existence a new body for such a purpose, and thus further, by duplication of organization, to emphasize our professional tendency towards individualism?—I am, etc.,

Hove, Oct. 6th. E. ROWLAND FOTHERGILL, M.B.

RURAL PRACTITIONERS' REMUNERATION.

Sir,—The railway strike caught me on an official visit to North Wales, and for the last three days I have been detained (and most hospitably entertained) in Merionethshire, one of the wildest and most difficult of Welsh counties, from the travelling point of view. During these days I have taken full opportunity of renewing an acquaintance, now twenty-five years old, with really rural practice, and I am thus able, I think, to reassure your correspondent Dr. Sydenham. His fears that there will be no representation of the remote parts of the kingdom on the committee which is dealing with the National Insurance Mileage Fund are groundless. Dr. Lewys-Lloyd, a member of that committee, was in general practice in this county before becoming county medical officer of health. He is also secretary of the county Panel Committee, and has devised, with infinite trouble and with full knowledge of every inch of the ground, a local mileage scheme which (apart from the amount available) has proved very satisfactory to the doctors concerned. The interests of practitioners in remote districts are safe in his hands. I know Exmoor and Dartmoor, and I am sure there are no travelling difficulties there that cannot be equalled or surpassed here. As for the Fen or any other district presenting special features, the committee can easily obtain first-hand information of its special difficulties.

My experience of the last few days has deepened my conviction that the rural practitioner—the *really* rural practitioner—is at a great disadvantage as regards remuneration compared with his urban colleague, and now that we are negotiating a new agreement is the time to level up the inequalities. Crawling over bridle-paths never intended for motor cars; looking over the edges of precipices—both with surfaces reminiscent of the beds of mountain streams; climbing gradients which are freak hills only suitable (and occasionally used) as test hills in motor trials; travelling many miles to see one or two patients; and trying to realize what it must be like for six months of the year, I feel that the Insurance Acts Committee and its Rural Subcommittee were thoroughly justified in insisting that not only must distance be taken into account but also surface. More particularly, as they insisted, is it necessary to allow for the *time element*, for the authorities and the average urban practitioner have no idea of the amount of time spent in reaching many of these remote patients, particularly when the journey is over roads which are more like the recollection of a bad dream than what we in the towns know as roads.

I can assure Dr. Sydenham and other doctors working in the remote districts that their special claim for consideration is not at all likely to be forgotten, nor will it fail because of lack of knowledge and sympathy on the part of their representatives.—I am, etc.,

September 29th. Alfred Cox.

Sir,—I think that unless something is speedily done the country practitioner in many cases will cease to exist. Unfortunately the medical men in the towns know little of the troubles that beset their country brethren. I think that, owing to the great cost of getting about, insurance work in the country is not very well paid, and I also think that some sort of State assistance ought to be given to the village practitioners for the services they render in attending the dependants, that is, the wives and families of the working population in country places, who in the majority of cases are unable to pay adequate fees by reason of the distance of their place of abode from their medical attendant. Neither do I think the maternity fee paid by the Insurance Commissioners in the country is adequate, considering the distance to be gone to attend these cases. The services rendered to the community by the rural practitioners are not small, wherefore I think it is nearly time that they received some sort of State recognition and some sort of a pension when they can no longer work.—I am, etc.,

Ashford, Kent, Sept. 29th. Philip M. Toms.

AMENITIES OF DEBATE.

Sir,—Anyone perusing the medical journals for the past year or so must have been struck by the discourtesies, insinuations, and recriminations abounding in the columns devoted to correspondence on insurance matters. As a very mild example of this kind of unpleasantness witness Dr. J. C. Lyth's letter on behalf of the York Local Medical and Panel Committee, and the reply of the Medical Secretary of the British Medical Association. The former's letter was very much to the point, and quite formal in tone. The reply of the Medical Secretary was, as far as I can judge, hardly to the point at all. He quibbles over the word "accept," which appears to me to be quite an excellent one, and quite superior to the Medical Secretary's rather cumbrous paraphrase, as it quite obviously means something else in addition. Later he proceeds to say: "There can obviously be no proof that there has been 'a very large number of attendances . . . unrecorded and uncharged for.' If it be so, it is a reflection on the good sense and business capacity of the profession which the Insurance Acts Committee would regret very much to make."

This surely is quite beside the point. Our profession collectively has notoriously very little "good sense or business capacity." Furthermore, Dr. Lyth is quite right, as can be vouched for by any man with practical panel experience. On the other hand, Dr. Cox's reply can only lead one to suppose that he shares the directly opposite opinion, though I shrewdly suspect that Dr. Cox knows quite well that Dr. Lyth's contention is absolutely sound. This kind of thing must leave the thousands of the rank and file of panel practitioners completely bewildered. I am not going to labour this point further, but Dr. Cox's letter seems to me akin to the answers to questions made in the House of Commons, where under secretaries vie with each other in befogging the questioners and giving the question itself any other meaning than what was originally intended. Does Dr. Cox imagine that, by this sort of quibbling and "scoring off" an opponent as to the choice of words and phrases, he is advancing the cause of the medical profession in the slightest degree? In the days to come the medical profession will be grateful only to those who have really fought for their good in a large way and not obscured the main issues by petty bickerings. It seems to me that if any of the various associations and unions of medical men saw the slightest chance—not a certainty—but the slightest chance of benefiting their profession in the future by amalgamation then it is the solemn duty of these unions and associations to sink their differences—their pride may be—and join forces for the common good. Otherwise, where is the "good sense and business capacity" of our leaders?—I am, etc.,

Maidstone, Sept. 14th. A. Sylvester Bradley.

*** With regard to the word "accept," which is considered ambiguous, we have made inquiry and are informed that the figures were supplied to the Insurance Acts Committee by the Ministry, and that they were passed on by the Medical Secretary with the intimation that they were the only figures available, and showed a certain state of things.

THE BRITISH FEDERATION OF MEDICAL AND ALLIED SOCIETIES.

Sir,—In a letter which appeared in your columns on September 20th we are reminded that this federation is the successor of the "Medical Parliamentary Committee." There is, however, an earlier stage in its ancestry, and the story, I am afraid, does not make for confidence in the present organization. The beginning was a meeting of the profession held some twelve months ago in the Steinway Hall. This meeting was invited to appoint a committee to draw up a scheme with a view to secure an increased medical representation in Parliament, and the invitation was accepted on the assurance that no executive action would be taken until the scheme had been approved by a further meeting of the profession. Whether any such scheme has been framed I do not know, but certainly the pledge given to the meeting has not been fulfilled. We have heard that the committee took to itself the title of "Medical Parliamentary Committee"; that it entertained medical members of Parliament to dinner; that it contemplated the employment of an expert lobbyist at the House of Commons; and that it intended a deputation to the Prime Minister. All these gratuitous exercises may have been excellent, but they were quite without sanction from

the meeting which called the committee into existence, and they cannot be accepted as a substitute for the particular engagement which the committee definitely undertook.

Again, in the course of the original meeting the chairman, in response to a question from a member of the audience, assured the meeting that the committee would not concern itself with the electoral affairs either of Scotland or of Ireland, and in reliance on this promise an intention to press for representation of Scottish graduates on the committee was abandoned. Yet, at the general election the committee supported the claims of one of the candidates for the Scottish Universities constituency, and it co-opted a representative from a body which called itself the Scottish Universities Parliamentary Association, and which came into existence shortly before the general election, not, as its name might suggest, in one or other of the Scottish academic centres, but at 37, Russell Square, W.C.—that is, at the official address of the gentleman whose candidature the association was formed to promote but failed to carry to success. In other words, the pledge not to interfere with the question of Scottish representation in the House of Commons, though explicitly given by its chairman, was broken by the Steinway Hall committee. Here, then, are two instances in which this committee has not kept its word, and the record, I repeat, does not invite confidence.

So far as I know, the gentlemen signing the letter in your issue of September 20th, and of whose desire to serve the profession there can be no question, took no active part in the Steinway Hall meeting, but I understand that some of those personally committed by the promises made at this meeting are among the officials or directors of the British Federation. What constituency they represent in the Federation I do not know, but most certainly it is not the general meeting of the profession which first called them into being. They were there given a definite and specific reference. This reference they have not discharged, and any other activities they have cultivated have been wholly without warrant. The Federation appears as one of these activities, and its appeal for confidence, therefore, cannot be separated from the story of its origin. The style and title may be new, but the broken pledges remain, and have acquired by this time, it is to be feared, "a very ancient and fish-like smell."—I am, etc.,

London, W., Sept. 28th. C. O. Hawthorne.

*** We referred this letter to the Chairman of the British Federation of Medical and Allied Societies and have received the following communication:

Sir,—We thank you for the opportunity you have given us to reply to a communication from Dr. C. O. Hawthorne dealing with what he terms the ancestry of "The Medical Parliamentary Committee." Dr. Hawthorne rightly assumes, in his letter, that we personally were neither present at the Steinway Hall meeting on October 1st, 1918, nor were we then connected with the "Medical Parliamentary Committee." The pledge referred to as having been given at that meeting was that the temporary committee should report to a further meeting of *the whole profession*, as distinct from a meeting of representatives of the existing medical organizations. It is hardly likely that the same individuals would have attended a second meeting convened on the lines of the first, and it is more than probable that a meeting of representatives of existing medical bodies would be a far more representative gathering of the profession. What actually took place was that, as a result of the resolution put by the Right Hon. Christopher Addison, M.P., at the Steinway Hall meeting, and carried, a temporary body was formed, which body reported to a further conference convened and held at the Central Hall, Westminster, under the chairmanship of Sir Wm. Watson Cheyne, M.P. At this second conference of representative bodies it was decided to proceed in the formation of a permanent body, the duty of giving effect to the seven resolutions adopted, and of preparing a financial scheme, being left to the provisionally constituted "Medical Parliamentary Committee." This meeting was reported in your columns on May 10th, 1919, and also in the *Lancet* of the same date. The Provisional Committee further reported to a meeting of the representatives of the various associations and societies on July 11th last, at the College of Ambulance, when the present Federation came into being.

We know of no body established on a "mandate" from all the members of a profession or trade. Surely every new movement owes its origin, and its triumph over the difficulties inseparable from its initial stages, to the forward policy of a few individuals. It matters little, however, how and by whom the movement was started; we now have in the Federation a definite body which, if adequately supported, should enable the profession to unite and exercise the function of guiding public opinion in all matters affecting the national health. Thus can we hope to secure for the nation sound legislation based on expert opinion. A central organization, unconcerned with either the internal affairs or the policies of the bodies forming it, can achieve this aim and provide a common channel of utterance.—We are, etc.,

Malcolm Morris,
Chairman.
Charles Buttar,
Honorary Secretary.
N. Howard Mummery,
Organizing Secretary.

The British Federation of Medical and Allied Societies,
20, Hanover Square, W.1, Oct. 6th.

STIFF KNEE IN COMPOUND FRACTURE OF FEMUR.

Sir,—From August, 1917, till the armistice I devoted my whole time to fractured femurs, and found that this bogey of stiff knee is very largely done away with by treating the fracture on a splint bent to an angle between 30 and 40 degrees, which bears out the inference drawn by C. D'Oyly Grange from his observation of the position of the patella.

This bent splint has the added advantage that it tends to prevent the lower fragment from becoming displaced backwards if the extension is applied below the knee only. I also found that there was no looseness of the knee after 20 lb. had been applied continuously for two months as long as the knee was flexed about 30 degrees.—I am, etc.,

P. T. Spencer-Phillips,
Late R.A.M.C.(T.)

Chelmsford, Oct. 7th.

MUSIC THERAPY.

Sir,—Your editorial in the British Medical Journal of September 20th, p. 388, is very gratifying evidence of a revival of interest in a valuable means of treatment. I gather from Sir F. W. Mott's letter in the British Medical Journal of September 27th, p. 424, that he employs music subjectively—if I may so express it. May I point out that the aim of the Guild of St. Cecilia and of the earlier workers in this field was to use the effects of music objectively, and my paper "Music and medicine" (*Medical Magazine*, 1893) was an attempt to illustrate the *rationale* of the method? At present the subject is in able hands, and we may look forward with interest to further useful developments.—I am, etc.,

Portsmouth, Sept. 27th. J. G. Blackman.

Universities and Colleges.

UNIVERSITY OF CAMBRIDGE.

The University in the War.

Dr. A. E. Shipley, F.R.S., Master of Christ's, in resigning the post of Vice-Chancellor on October 1st, made an address to the senate, in which he reviewed the recent history of the University. He said that though victory had been won, in many parts of the world the war still lingered; and weekly, almost daily, news was received of the loss of more and still more members of the university who had given up all for the sake of the country and the cause they believed to be right. The careful records prepared by Mr. Austin Fabb showed that of the total number of Cambridge soldier students serving—some 16,000—2,652 had been killed and 3,460 wounded; 497 were reported as missing and prisoners, but most had now been accounted for. The honours included: Mentioned in Dispatches 5,036, Victoria Crosses 12, Distinguished Service Order 899, Distinguished Service Crosses 37, Distinguished Flying Crosses 34, Air Force Crosses 34, Military Crosses 1,861, various Orders of the British Empire 874, Distinctions from Allies 624, Knights Commanders of the

Bath, Companions of the Bath, Knights Commanders of St. Michael and St. George, etc., 305, Companions of Honour 5. It was also to be placed on record that 76 university attendants had been on military service, and that 10 had laid down their lives.

"It is with pride," Dr. Shipley said, "that I recall the connexion of the University and of University men with the defence of the country. It was during the South African war, when a not inconsiderable number of undergraduates joined the ranks as privates, that a movement was inaugurated for the establishment of an Officers' Training Corps in lieu of the Cambridge University Volunteer Rifles, and it was further suggested that enrolment to this new corps should be compulsory. The formation of the O.T.C. in 1908 has proved most valuable both here and in other universities. In January, 1913, the question of compulsory military training at the University was revived in the general interests of education; and no less than 1,800 members of the Senate supported a requisition to the Council for official sanction. It was hoped that a first step might thus be taken by Cambridge towards increasing the supply of officers for the Auxiliary Forces. The outbreak of the war within a few weeks after the presentation of the memorial swept away all such proposals, and the present circumstances are not opportune for elaborating the question. Here I leave it to my successors with confidence that our University will not fail—as it has never failed—to realize its national responsibilities."

After reference to the death of the Chancellor, Lord Rayleigh, that of Professor Alexander Macalister was mentioned, and he was described as "a great teacher and a life-long student of wide and varied erudition, one whose steady and laborious work during the war in the school of anatomy, where he was left almost single-handed, was an example to us all."

The number of matriculations in the last normal year, 1913-14, was 1,178, and during the period of the war—1914-15, 727; 1915-16, 344; 1916-17, 235; 1917-18, 281. With the signing of the armistice the numbers leapt up. In 1918-19 1,835 matriculated, and of these 1,835, no fewer than 1,552 were matriculated in the Lent and Easter terms of 1919. In addition, at the request of the Admiralty, accommodation had been found for some 400 naval officers during the first half of 1919. From the beginning of the Easter vacation to the end of the Easter term, 200 American soldier students were attending the University, and the teachers sacrificed most of their vacation to provide courses for them; the experiment was a complete success, and Cambridge now had scattered through every State of America a small but influential group of citizens, all members of the University, who valued their connexion with Cambridge and its colleges, and would not readily forget.

Dr. Shipley then enumerated the endowments received by the University; they included £210,000 from oil companies and individual benefactors for the endowment of a chemical school at Cambridge; a gift of £10,000 for a chair in Italian from Mr. Arthur Serena, of £1,000 from Mrs. Gibson to provide a scholarship in Spanish literature, of £20,000 from Lord Rothermere to endow a chair of naval history, and of £20,000 from Mr. Emile Mond, for a professorship in aëronautical engineering. Dr. J. B. Hurry, of Reading, who in 1912 founded a research studentship in physiology, of the annual value of £100, had provided a further endowment, which would double the income of the studentship, as "an expression of his admiration for the great services which Cambridge University has been able to render to the cause of humanity."

After mentioning that Sir Ernest Rutherford had become Cavendish Professor of Physics, in succession to Sir Joseph Thomson, who had consented to occupy the new chair of physics without stipend, Dr. Shipley specially welcomed Dr. Hazeltine, professor in the faculty of law, the first citizen of the United States to occupy a professorial post in the University of Cambridge.

The financial outlook, Dr. Shipley stated, was very serious, and it had been resolved to seek Government aid. An interim grant had been promised, but did not amount to 50 per cent. of the minimum stated by the various departments as necessary to reopen the University next term on a pre-war basis. The fees in some departments did not meet the expenses incurred by the students, so that the increase in numbers was in reality a cause of financial embarrassment. The Government proposed to set up a commission to inquire into the resources of the university and its colleges, and into the use made of them. Meanwhile, owing to the inadequacy of the emergency grant, it might be necessary to increase the fees charged to students. Further, the lack of a pension fund hampered university activities in all directions. The earnest hope was expressed that in this period of reconstruction the need for simplification would not be overlooked. The multiplicity of examinations and the complexity of their regulations, which increased yearly, was a heavy tax on college tutors and on the staff of the registry. "The number of syndicates and boards is constantly increasing. I cannot," Dr. Shipley added, "recall an instance in which any really big piece of work in the world's history has been done by a committee, and I venture to think we have too many of them; I feel certain they are usually too large, and I know that in a great majority of cases they lack the inspiration and effectiveness of youth."

Dr. Shipley has been succeeded as Vice-Chancellor by Dr. Peter Giles, Master of Emmanuel.

UNIVERSITY OF LONDON.

GUY'S HOSPITAL MEDICAL SCHOOL.

THE following entrance scholarships have been awarded:

Senior Science Scholarships for University Students: A. H. Douthwaite, £75. Junior Science Scholarships: T. S. Blackiddie, £120; W. G. Sears, £50. Scholarships in Arts: D. F. Durward, £60; O. F. Farndon, £40.

UNIVERSITY OF GLASGOW.

THE following degrees were conferred on October 6th:

M.B., CH.B.—*D. MacC. Blair, †Elizabeth Pace Cameron †J. Caddies, †A. J. Cronin, J. S. Aitken, T. Anderson, S. B. Borthwick, Edith D. Dobbie, J. Hill, F. McDonald, Ellen T. Mackenzie, Margaret E. MacLaren, Caroline J. Maclennan, D. J. Nicol, Kathleen Nicol, A. G. Petrie, H. A. Ross, Catriona Sinclair, H. H. Spencer, D. McD. Sproull, N. E. Stone, J. Whitelaw, W. A. Wilson.

* With honours. † With commendation.

The Brunton Memorial Prize of £10 has been awarded to John William Peden, as the most distinguished graduate in medicine of the year.

The Services.

HONOURS.

THE following are the statements of services for which the decorations announced in the *London Gazette* of March 8th, 1919, were conferred:

Bar to the Distinguished Service Order.

Captain (acting Lieut.-Colonel) William Ross Gardner, D.S.O., R.A.M.C.(S.R.), attached 138th Field Ambulance.

He was in charge of all forward medical arrangements of the division for the period October 4th, 1918, to October 26th, 1918 first in front of Gheluwe, and then both west and east of Courtrai. During the period in question, night and day, he visited the rear aid posts, relay and forward collecting posts, often under heavy shell fire and gassing, in order to personally ascertain that the work of evacuation was proceeding satisfactorily. He showed great gallantry and ability, and his devotion to duty saved many lives. (D.S.O. gazetted January 1st, 1918.)

Lieut.-Colonel Daniel Paul Kappele, D.S.O., 5th Field Ambulance, C.A.M.C.

For conspicuous gallantry on October 12th, 1918, in the vicinity of Iwuy, north-east of Cambrai. He drove a car to the forward area through shell fire, which wounded him and others. He proceeded to dress the wounds of the others, directing and assisting in their removal to a place of safety. It was not until all were attended to and removed from danger that he allowed himself to be taken away and suffered his own wounds to be dressed. He showed great pluck and devotion to duty. (D.S.O. gazetted June 3rd, 1918.)

Lieut.-Colonel Thomas McCrae Leask, D.S.O., 10th Field Ambulance, C.A.M.C.

During recent operations in front of Cambrai he was given the task of clearing the wounded of a division. For five days on end he worked with untiring energy and absolute disregard for personal danger. On the night of September 30th-October 1st, 1918, he, with the help of a near-by non-commissioned officer and one of the wounded drivers, succeeded in rescuing patients from a burning car, and had them immediately evacuated. His conduct throughout was admirable. (D.S.O. gazetted January 1st, 1918.)

Distinguished Service Order.

Captain (acting Lieut.-Colonel) William Wallace Boyce, No. 2 Field Ambulance, R.A.M.C.

For great gallantry, initiative, and resource in personally supervising the evacuation of casualties during the operations on November 4th, 1918, near Petit Cambresis. He effected the rapid removal of wounded across the Sambre Canal under very difficult circumstances and considerable shell and machine-gun fire. On one occasion, when his advanced dressing station was blown in by shell-fire, he personally reorganized his stretcher-bearers in a new site, inspired confidence in his officers and men, and undoubtedly saved many wounded under heavy fire.

Major Robert Fulton Craig, 15th Field Ambulance, A.A.M.C.

For conspicuous gallantry and devotion to duty in charge of the bearer division near Bellicourt from September 29th to October 2nd, 1918. During the whole of this period he rendered valuable service, and by his coolness and initiative surmounted all difficulties under most trying conditions. He not only worked the evacuation of wounded from rear aid posts of his own brigade, but he personally reorganized the evacuation from other brigades under very heavy shell and machine-gun fire.

Captain (acting Lieut.-Colonel) William Hillgrove Leslie McCarthy, M.C., R.A.M.C.(S.R.), attached 19th Field Ambulance.

During the operations connected with the crossing of the Sambre, November 4th to 8th, 1918, he exhibited marked gallantry and devotion to duty. He was in command of the advanced dressing station, and maintained the closest touch with the front line troops, arranging for the immediate evacuation of casualties as they occurred. He worked continuously for three days and three nights, and his energy, able management, and devotion to duty saved many lives.

Temporary Captain Clarence Randolph Young, M.C., R.A.M.C., attached 1st Battalion Shropshire Light Infantry.

On September 18th, 1918, when the battalion had suffered very heavy casualties, he followed up and remained close behind the front line, and in ground swept by the enemy's machine-gun fire, and exposed to artillery fire, spent the whole day tending and clearing the wounded; and on the following morning he went up, and, after spending some hours in No Man's Land, he got in several wounded men. By his gallantry and devotion to duty he undoubtedly saved many lives.

Second Bar to the Military Cross.

Temporary Captain (acting Major) George Rankine, M.C., R.A.M.C., D.A.D.M.S., 9th Division.

He was constantly with the fighting troops on September 28th, 29th, and 30th, 1918, during the active operations, organizing and assisting field ambulance bearers and regimental medical officers in establishing evacuation routes for the clearing of casualties out of the danger zone. He displayed great gallantry and devotion to duty near Deerwyck in this occupation, and his initiative and zeal saved many lives. (M.C. gazetted November 4th, 1915; first bar to M.C. gazetted July 26th, 1918.)

Bar to the Military Cross.

Captain James Everett Barry, M.C., C.A.M.C., attached 2nd Canadian Battalion, East Ontario Regiment.

For great gallantry and devotion to duty during the successful operations north of Bourlon Wood on September 27th, 1918. Throughout he worked unceasingly under heavy fire from machine guns and artillery. He made three trips to the outpost line to attend to wounded men. All wounded within the area fought over by this unit on September 27th were cleared shortly after the objective had been gained. (M.C. gazetted December 2nd, 1918.)

Temporary Captain Michael Charles Burke, M.C., R.A.M.C., attached 2nd Battalion Durham Light Infantry.

In the operations in the vicinity of Holnon on September 18th to 24th, 1918, he displayed conspicuous gallantry and devotion to duty. Having dealt with all cases at his aid post, he led out stretcher-bearers and, under machine gun and shell fire, collected more wounded. His search led him into an enemy-held trench, where he only desisted when bombed out. His efforts and his fine example were instrumental in saving many lives. (M.C. gazetted August 25th, 1916.)

Temporary Captain George Milne Cameron, M.C., R.A.M.C., attached 65th (West Lancashire) Field Ambulance.

From October 23rd to 25th, 1918, during the heavy fighting about Oviliers and Poix du Nord, he, as bearer officer, showed the highest devotion to duty. He kept in constant touch with his regimental aid post, and several times led bearer squads through intense shell fire to clear wounded. For thirty-six hours he worked without sleep and practically without food till the wounded were cleared. He saved many lives and showed great gallantry. (M.C. gazetted July 25th, 1918.)

Captain Frederick Thomas Campbell, M.C., C.A.M.C., attached 8th Canadian Battalion Manitoba Regiment.

For great gallantry and devotion to duty. During the attack east of the Canal du Nord on September 27th to 28th, 918, he continuously attended the wounded whilst exposed to severe enemy fire. On September 29th, 1918, in an attack east of the Douai-Cambrai road, he worked coolly and fearlessly in the open for four een hours. His fearless devotion to duty saved many lives. (M.C. gazetted February 1st, 1919.)

Captain Henry Clarke Davis, M.C., 10th Field Ambulance, C.A.M.C.

He was in charge of the evacuation of wounded from the forward area during the fighting in front of Cambrai commencing September 28th, 1918. He formed routes of evacuation under heavy machine-gun and shell fire. He guided parties of stretcher-bearers in front of the regimental aid posts at St. Olle and Sailly, and collected many wounded men Through ut he showed great gallantry and devotion to duty. (M.C. gazetted January 18th, 1918.)

Lieutenant (temporary Captain) William Haig Ferguson, M.C., R.A.M.C., attached 8th Battalion, Royal Berkshire Regiment.

For marked gallantry and devotion to duty. On October 23rd, 1918, during the attack in front of Le Cateau, he was wounded in the left leg whilst attending to casualties In spite of the wound he carried on attending to the wounded under a heavy enemy barrage. Later, when his temporary dressing station was blown in by a gas shell, he assisted to extricate the wounded, who were in danger of suffocation. (M.C. gazetted September 16th, 1918.)

Lieutenant (acting Major) James La Fayette Lauder, D.S.O., M.C., 138th Field Ambulance, R.A.M.C.

For conspicuous gallantry and marked devotion to duty during the operations, October 14th to 20th, 1918, as officer in charge forward bearer officers of brigades. He worked continuously, personally directing the evacuation of wounded from the regimental aid posts east of Courtrai, wherever the casualties were heaviest, encouraging the bearers, and setting a splendid example under heavy fire to those under him. (M.C. gazetted December 11th, 1916.)

Captain (acting Major) Herbert Bruce Low, M.C., 2/2nd (Northumbrian) Field Ambulance, R.A.M.C.(T.F.).

For conspicuous gallantry and devotion to duty. During the attack, October 3rd to 8th, 1918, on Gouy and Le Catelet, he was in charge of bearers and forward posts. Whilst under considerable shell and machine-gun fire he went forward, visiting regimental medical officers, reconnoitring for forward bearer posts, and supervising the evacuation of wounded from the forward area, keeping up a complete chain of evacuation. (M.C. gazetted January 10th, 1917.)

Captain Harry Clarke Moses, M.C., 5th Field Ambulance Company C.A.M.C.

During the operations north of Cambrai, October 9th, 1918, he was in charge of the stretcher-bearers evacuating the wounded of an attacking infantry brigade. He personally led his parties close behind the advancing infantry under severe shell and machine-gun fire. Owing to his fine example of cool courage and energy the evacuation of wounded from difficult and dangerous positions was rapidly accomplished. (M.C. gazetted February 15th, 1919.)

Temporary Captain James Carter Ogilvie, M.C., R.A.M.C., attached 1st Battalion Border Regiment.

For conspicuous gallantry and devotion to duty near Hoogemolen on October 22nd, 1918. During an attack when many regimental stretcher-bearers had been knocked out by machine-gun fire, he organized a party of bearers and took them out himself, searched the ground for wounded, dressed them under very heavy fire and evacuated them. He worked incessantly for a period of five hours, until every man had been dressed and evacuated. (M.C. gazetted September 16th, 1918.)

(To be continued.)

Obituary.

WILLIAM KAY WALLS, M.B.Lond.,

Honorary Surgeon to St Mary's Hospital, Manchester; Clinical Lecturer on Midwifery and Diseases of Women in the University of Manchester.

By the death of Dr. William Kay Walls, on September 30th, the North of England has lost one of its most able specialists in obstetrics and gynaecology.

He was born in 1865, the son of a doctor in a busy practice in Manchester. He entered the Medical School of Manchester University, and obtained the diplomas of L.R.C.P. and M.R.C.S. in 1888, and took the M.B.Lond. in 1892. He was Mr. Whitehead's house-surgeon at the Royal Infirmary, and then obtained the post of house-surgeon to St. Mary's Hospital, Manchester. His association with this hospital was only broken by his death. In 1891 he became resident obstetric assistant surgeon and surgical officer, an appointment which he held for seven years. It was at this time he showed his capacity in the special line he had chosen, and gave promise, afterwards so fully realized, of becoming a brilliant surgeon. He seemed very happy in the post, and was glad to stay until a suitable opportunity occurred for starting consulting practice, while the honorary staff, on the other hand, were glad to have a man who was so reliable in cases of emergency and who had talent as an organizer. This long apprenticeship served him well, for when he left the hospital he started his private work with a fund of experience and a practical dexterity which few men of his years could possess. He remained connected with St. Mary's Hospital as assistant surgeon, and after the amalgamation of this hospital with the Southern Hospital in 1905 he had charge of a larger number of beds. He made rapid progress as a consultant, and was widely known as an able and reliable man. His chief reputation perhaps was as a bold and skilful operator, and while this was fully deserved, his sound judgement as to when to operate should not be overlooked. He was very deliberate in his decision, but once he had decided to operate he was rapid and most expert. It is to be regretted that he wrote so little, because there are not many men in his special work who had clearer views. I believe he thought there was a great deal too much writing. But there was no one who had the opportunity of following his work who did not learn something from his methods.

He was a regular attendant at the meetings of the North of England Obstetrical and Gynaecological Society for more than twenty years, and latterly was a prominent member, being president in 1910. He was modest in his contributions to the discussions, but when he did speak he was always worth listening to. He was an excellent clinical teacher, and held the post of clinical lecturer in the Manchester University.

Outside his professional life Dr. Walls had many interests — golf, motoring, photography, music, and billiards all attracted him. He was the main organizer of an annual competition for medical golfers living in Manchester and neighbourhood, and put in a great deal of work to make these meetings a success. Personally, he was quiet in his manner, and might even have been called reticent. But he was always observant and thoughtful, and in part, I believe, his reticence was due to modesty. He had social instincts and a great fund of quiet humour, and no one had a more attached circle of intimate friends. His nature was essentially kindly, and he would spare no trouble to do a good turn to a friend. As a colleague he was most loyal and helpful. The last two years of his life were clouded by ill health, but until last spring he made no difference in his life; then he was compelled to give up active work. When he must have known that the end could not be far away his courage was remarkable. Even at times when he must have been suffering from pain and great weakness he would talk of his troubles with a touch of his old humour. He will be greatly missed by a large circle of friends, his colleagues, and by many who have been under his care, and not least by the poorer patients who crowded his out-patient room.

Dr. Walls leaves a widow and three daughters.

Archibald Donald.

Captain H. South, Australian Army Medical Corps, was reported as having died on service, in a casualty list published on September 30th.

DR. ARTHUR COLIN MACKENZIE, J.P., of Mount Morgan, Queensland, Australia, died on July 22nd, 1919. He was the seventh son of the late John Robertson Mackenzie, D.D., of Birmingham, and was born on December 31st, 1860. His eldest brother was the late Sir Alexander Mackenzie, K.C.S.I., late Chief Commissioner of Burma, Chief Commissioner of the Central Provinces, and Lieutenant Governor of Bengal. Of the seven sons only one now is left. Arthur Colin Mackenzie received his education at Cheltenham College, Edinburgh University, and the London Hospital, and obtained the Scottish triple qualification in 1886. He came out to Australia in 1890, and after a trip in Western Queensland and a period of practice in North Rockhampton he settled in Mount Morgan, where he was engaged in active practice until the time of his death. In former years he took an active interest in Masonic matters, and had attained to the 18th degree in Freemasonry. At the time of his death he was Government medical officer, medical officer of health to the municipality of Mount Morgan and the Banana Shire Council, medical inspector of schools, and o/c B. Section, 7th A.A.M.C.

EDWARD FRANK NICHOL, M.C., Captain 3rd Battalion Royal North Lancashire Regiment, youngest son of Dr. Nichol of Margate, died as the result of an accident at Dunkirk on September 24th, aged 22. He got his commission on August 15th, 1914, and attained the rank of captain on May 2nd, 1916.

Medical News.

THE Prime Minister has, through the Minister of Health, addressed a letter to members of Medical War Committees and to members of local tribunals and appeal tribunals, thanking them for their work, which, he says, played a vital part in securing the victory and peace which have been achieved.

SIR GEORGE NEWMAN, K.C.B., chief medical officer to the Ministry of Health, will deliver the inaugural address at the opening of the winter session of the West London Post-Graduate College, West London Hospital, Hammersmith, W.6, on Thursday next, October 16th, at 4 p.m.

THE postponed opening of the winter session of the Middlesex Hospital will take place on Wednesday next, October 15th, at 3 p.m., and the dinner of past and present students will be held on the same evening at the Holborn Restaurant at 7 o'clock.

THE first annual dinner of the Belfast University Services Club will be held on November 11th (Armistice night), in Thompson's Restaurant, Belfast. Queensmen who have served in H.M. Forces desiring invitations should write to the Honorary Secretary, Services Club, Queen's University, Belfast.

DR. EDWARD HINDLE, Kingsley Lecturer and Bye Fellow of Magdalene College, Cambridge, assistant to the Quick Professor of Biology, has been appointed to the chair of biology in the School of Medicine, Cairo, Egypt.

SIR BERTRAM WINDLE, F.R.S., in his annual report to the governing body of University College, Cork, announces that his resignation of the presidency of the College will shortly take effect. Failing the creation of a university for Cork, he had intended to resign on attaining a pensionable age—that is, a year ago; but the war delayed this step, and the certainty of a university would have delayed it still further. He has accepted an invitation from St. Michael's College in the University of Toronto to deliver a course of lectures on Science in Relation to the Scholastic Philosophy during the first three months of next year.

AN advanced course will be given at the ophthalmological clinic of the Hôtel Dieu, Paris, under the direction of Professor de Lapersonne, beginning on Tuesday, October 14th, at 4 p.m. The course will consist of sixteen sessions, comprising lectures, clinical work, and practical demonstrations. Medical practitioners and students from France and other countries should apply to the Secretariat of the Faculté de Médecine, Paris. The fee is 50 francs. A certificate will be given to those attending the course.

THE Islington war memorial fund for enlarging the Great Northern Central Hospital, Holloway Road, has reached £7,398. The Prince of Wales has consented to preside at a festival dinner in aid of the hospital early in December.

THE Wellcome Historical Medical Museum will be reopened on Monday next.

DR. ALEXANDER MORISON of London has, by due legal process in Scotland, assumed the name of Alexander Blackhall-Morison.

DR. WILLIAM FAIRBANK, O.B.E., M.V.O., Surgeon to H.M. Household at Windsor Castle, is mayor-elect for Windsor.

COLONEL JAMES TURTON, F.R.C.S., V.D., has been appointed to the Commission of the Peace for Brighton.

DR. R. DUNSTAN, who contested the Moseley Division of Birmingham at the last general election, was the Labour candidate at the Rusholme by-election.

THE Ministry of Health has issued to local authorities and public utility societies model forms of tender and agreement for use in connexion with contracts for State-aided housing schemes.

AT the matriculation examination of the University of London in September, 45 candidates passed in the first division and 340 in the second.

A DISCUSSION on influenza at a meeting of the Royal Sanitary Institute at Poole on Friday next, at 6.30 p.m., will be opened by Dr. A. T. Nankivell, M.O.H. for the borough.

A SPECIAL dinner of the Tuberculosis Society, at which many of the distinguished foreigners attending the Conference of the National Association for the Prevention of Tuberculosis will be present, is to be held in Claridge's Hotel on Wednesday, October 15th, at 7.30 p.m. Applications for tickets (inclusive of wine) together with remittance, 30s., should be sent to Dr. Blackmore, Woolwich Tuberculosis Dispensary, Maxey Road, Plumstead, S.E.18, not later than by last post on Monday, October 13th. A certain number of tickets are available for guests.

THE courses arranged by the Paris Society of the directors of laboratories of radiology and electrotherapy, suspended during the war, will be resumed on November 3rd. They will include lectures and practical demonstrations in radiology, radiumlogy (we are not responsible for the word), electrology, and photo herapy. Full particulars can be obtained from Dr. Delherm, Hôpital de la Pitié, Boulevard de l'Hôpital, 83, Paris (xiiie).

THE American Relief of Belgium Committee has allotted funds amounting to £3,200,000 for the intellectual restoration of that country. The Universities of Brussels, Ghent, Liége, and Louvain are each offered £80,000, and £2,400,000 will be placed at the disposal of the Belgian Government for grants to students in need of assistance for the prosecution of higher studies.

LIEUT.-COLONEL W. TEMPLE, who won the V.C. by gallantry in the Maori war of 1863, left £3,704. Dr. R. D. Purefoy, for many years Master of the Rotunda Hospital, Dublin, left £44,960. Dr. Clifford Luxmore Drew, coroner for the Western Division of London, left £16,327.

THE Italian Society of Medical Radiology will open its second congress at Genoa on October 20th.

AT the annual meeting of the American Medical Association this year the secretary, Dr. Alexander R. Craig, stated that the membership was 45,412.

A PICTORIAL history of the work of the medical department of the United States army during the operations in Europe, comprising about 75,000 feet of moving and 10,000 of still pictures, has, we learn from the *Journal of the American Medical Association*, been turned over to the Surgeon-General's Office. Fifteen pictures were taken of every hospital, including an aërial view of the buildings, views of the operating theatres and wards, patients, medical officers, and men.

ACCORDING to a statement issued by the Surgeon General's Office at Washington more than 93 per cent. of the 2,000,000 men demobilized since the signing of the armistice have been discharged with a clean bill of health. Six per cent. were reported to the Bureau of War Risk Insurance for disabilities and 1 per cent. were held back on account of communicable diseases in course of development.

IN January, 1919, seventeen students received diplomas at the Hangchow Hospital after a three years' course. In 1918 fifty doctors graduated from the Hangchow Hospital. Twenty maternity nurses, eighteen pharmacists, and a few male and female nurses also obtained diplomas. There are at present very few schools of pharmacy in China, although there is great need of qualified dispensers in hospitals, dispensaries, and chemists' shops, of which there are now many in the country.

Letters, Notes, and Answers.

ORIGINAL ARTICLES and LETTERS *forwarded for publication are understood to be offered to the* BRITISH MEDICAL JOURNAL *alone unless the contrary be stated.*

AUTHORS desiring reprints of their articles published in the BRITISH MEDICAL JOURNAL are requested to communicate with the Office, 429, Strand, W.C.2, on receipt of proof.

IN order to avoid delay, it is particularly requested that ALL letters on the editorial business of the JOURNAL be addressed to the Editor at the Office of the JOURNAL.

THE postal address of the BRITISH MEDICAL ASSOCIATION and BRITISH MEDICAL JOURNAL is 429, Strand, London, W.C.2. The telegraphic addresses are:

1. EDITOR of the BRITISH MEDICAL JOURNAL, *Aitiology, Westrand, London;* telephone, 2631, Gerrard.
2. FINANCIAL SECRETARY AND BUSINESS MANAGER (Advertisements, etc.), *Articulate, Westrand, London;* telephone, 2630, Gerrard.
3. MEDICAL SECRETARY, *Meliscera, Westrand, London;* telephone, 2634, Gerrard. The address of the Irish Office of the British Medical Association is 16, South Frederick Street, Dublin.

QUERIES AND ANSWERS.

SCHOOLBOYS' WEIGHT.

DR. W. R. L. DRAWBRIDGE (Resident Medical Officer, Lancing College) writes: In reply to Dr. Richard Hamilton (Parkstone), it has been my invariable experience for some years that, so far from it being "the rule rather than the exception that boys lose weight during a school term," they almost always actually gain in weight during term. Moreover, this continued to be the case during the period of food rationing, when the amount of nervous and physical energy entailed by work and play remained practically unaltered. This is in the case of boarders. I cannot say if it holds good in that of day boys, as I have not had to deal with the latter. With Dr. Hamilton, I will be much interested to learn the opinion of other school medical officers on this important matter.

DR. J. TREMLETT WILLS (Felstead, Essex) writes in reply to Dr. Richard Hamilton (BRITISH MEDICAL JOURNAL, September 27th, p. 430): I have records of the weights of 439 boys at the beginning and end of their first term at school—all boarders. I find that 76 per cent. put on weight (average 4½ lb.); that 18 per cent. lost weight (average 3½ lb.), and that in the others—6 per cent.—the weight remained stationary. Among those who lost weight I found amounts of 9, 10, 15 (twice), 16, and one of 36 lb., without record of severe illness, suggesting some error in those details. The highest gains were 19 and 18 lb. Slight losses are common among boys who are very fat and flabby on entering the school. The records date backwards from Easter Term, 1916, after which the sergeant was called up and measurements were not continued regularly, and they refer therefore to pre-rationing conditions.

In the Christmas Term, 1918, 191 boys were weighed at the beginning and end of the term to ascertain the effects of rationing, and the record shows that 83 per cent. put on weight (average 5½ lb.); that 11 per cent. lost weight (average 3 lb.); and that in 6 per cent. there was no change in weight.

These results seem to show that loss of weight at the end of a school term is the exception rather than the rule.

INCOME TAX.

E. H. inquires whether he is liable to a civil assessment on his pay as a R.A.M.C. officer, the pay having already been taxed by deduction in the usual way.

*** E. H. is certainly not liable to pay double income tax on his pay, and if the full amount of tax due to the Revenue has been deducted no civil assessment should be made. We say "the full amount" because cases have apparently occurred where the army agents have made an insufficient deduction, and we understand that in such cases the Revenue authorities claim to collect the balance due on a civil assessment, which seems not unreasonable. In a statement of total income for any year the army pay receivable for any portion of that year should be shown, otherwise the total would be incorrect; but it can of course be quoted as taxed by deduction.

LETTERS, NOTES, ETC.

PARTURITION AT ADVANCED AGE.

D. H. HUNTER WOODS (New Milton, Hants) writes: I have seen records of several references to childbirth at 48 years of age lately. The following may be of interest: In November, 1898, I attended Mrs. T. at her twentieth full-time confinement, seven weeks before her 50th birthday. She had also had one miscarriage. The family is unhealthy, several of them having very bad tuberculous disease of the spine, but the last seems the healthiest of the lot, and is now in the army. Mrs. T.'s periods continued till she was 55, and she is now in good health and working daily, though she will be 71 next January.

THE MEDICAL DEPARTMENT OF THE AMERICAN REVOLUTIONARY ARMY.

IN the *Annals of Medical History* (vol. i, No. 4) Colonel William O. Owen gives extracts from the journal of the American Congress from 1774 to 1783, which show how the medical department of the Revolutionary army had to struggle for recognition. In 1780 the director-general, Dr. W. Shippen, complained that the deputy quartermaster-general "will not supply our department with any more forage unless he is authorized to do so by an order of Congress." A resolution was thereupon adopted granting officers of the medical department certain provisions of land such as had already been made for officers of the line: "The director to have the same quantity as a brigadier-general. Chief physicians and surgeons and apothecary the same as colonel. Physicians and surgeons and apothecaries the same as lieutenant-colonel. Regimental surgeons and assistants to the purveyor and apothecary the same as major. Hospital and regimental surgeons' mates the same as captain." This was amended to include half pay on the same scale as officers of the line. A purveyor and assistant were provided for each hospital, who issued stores on requisition by surgeons. The scale of pay was small. The director-general received only £30 a month; chief physicians and surgeons £28; purveyors and apothecaries £26; physicians and surgeons £24; assistant purveyors and apothecaries £15; regimental surgeons £13; surgeons' mates £9. All received rations in addition. At the present day the surgeon-general receives a little over £133 a month, besides commutation for quarters. A regimental surgeon of the rank of major receives £:0, in addition to commutation for quarters.

"SHELL SHOCK" AT MARATHON.

IN *Science* of September 5th Dean A. Worcester calls attention to a passage in Herodotus (Book vi, Section 117) in which the Father of History seems to refer to a condition corresponding to shell shock arising from fright in battle. In his description of the battle of Marathon (490 B.C.) he says: The following prodigy occurred there: An Athenian, Epizelus, son of Cuphagoras, while fighting in the medley and behaving valiantly, was deprived of sight, though wounded in no part of his body, nor struck from a distance; and he continued to be blind from that time for the remainder of his life. I have heard that he used to give the following account of his loss: He thought that a large heavy-armed man stood before him, whose beard shaded the whole of his shield; that this spectre passed by him and killed the man who stood by his side.

ERYTHEMATOUS PATCHES IN RELATION TO MENSTRUATION.

"MEDICUS" writes: I would like the opinion of others who may have had some experience of similar conditions:—A married lady, aged 45, in good health, had not menstruated for eighteen months. She had suffered for years at intervals from left ovarian pain. One night recently she was alarmed by a rash on the lower abdomen. There were two patches of erythema over the right and left ovary respectively. The patch on the right was diamond-shaped, about 5 in. by 4 in., that on the left was circular, and about 2 in. in diameter. The skin was thickened, raised, reddish, and with a surrounding white line, such as is seen in urticaria. The right spot was painful to touch, the left not so much. Menstruation began in forty-eight hours. The margins of the patches were well defined, and their appearance such as might be expected to follow the application of mustard plasters. The idea in my mind was that the superficial nerves had responded to some congestive state of the ovaries preceding menstruation, and had reflexly caused a dermal picture of the underlying condition.

VACANCIES.

NOTIFICATIONS of offices vacant in universities, medical colleges, and of vacant resident and other appointments at hospitals, will be found at pages 48, 51, 52, 53, 54, 55, and 56 of our advertisement columns, and advertisements as to partnerships, assistantships, and locum tenencies at pages 49, 50, and 51.

THE following appointments of certifying factory surgeons are vacant: Forkhill (Armagh), Hadleigh (Suffolk), Shildon (Durham).

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